

From qrp-request@Think.COM Fri Jun 4 10:02:23 1993
Date: Fri, 04 Jun 93 13:48:25 GMT
From: jkearman@arrl.org (Jim Kearman)
Subject: "Color Burst" Transmitters

Jeff, NH6IL, mentions salvaging the color-burst oscillator from a TV.

Here in New England, the winter nights are long and boring, so some of us built transmitters using color-burst crystals, as formerly sold by Radio Shack. (Here in the US, the color-burst oscillator operates at approximately 3579 kHz.)

If you had the schematic for the board, you could probably get the oscillator perking. If you had the rest of the TV you could probably find a power transistor with gain at 80 meters. Or, you could just yank out the crystal and stick it in the Universal QRP Transmitter (Solid State Design).

For the benefit of those licensed in the last 20 years, the idea of using defunct television receivers as parts sources for amateur transmitters was developed into an art form by Lew McCoy, W1ICP, formerly of ARRL Hq. Mac retired about 1978, and now writes for _CQ_.

Mac wrote so many articles about converting TVs into transmitters, the local joke was that, someday, we'd run an article about building a TV from old Lew McCoy transmitters....

73,

Jim, KR1S

--

You know you're getting old when the new rig you had as a Novice becomes a collector's item.

jkearman@arrl.org WN2EDW 1962 - KR1S 1993

From qrp-request@Think.COM Wed Jun 2 13:33:49 1993

From: mvjif@mvubr.att.com
Date: Wed, 2 Jun 93 13:30 EDT
Subject: 1/2 Square

Kevin....

I know those Zany Zune Loopers, having met K6MDJ and W6SKQ....
Their antennas (and enthusiasm) are out of this world.

Fred, K6MDJ used to check into the NEN Northeast
QRP net at 8 am est., on Saturday mornings using his
3 element 40m full wave loop array !
I used to QNI him easily with my 40m loop and reflector.
We were both running 5 watts.

If you have a list of the antennas that the loopers
are going to be using this year, tell the gang on
this network. Everyone will get a big kick out of
it.

From qrp-request@Think.COM Wed Jun 9 08:21:46 1993
Date: Wed, 9 Jun 1993 7:29:43 -0500 (CDT)
From: James Speer <F_SPEERJR@CCSVAX.SFASU.EDU>
Subject: 30 meter sked

Hi, all,

We're off on a little holiday to the mountains. Will be spending Saturday June
12 thru Friday June 18 in Colorado, near Estes Park, and will have the MFJ 30
meter rig along. Will try to appear at around 10.106 each evening between 21:00
and 22:00 MDT (is that 03:00 to 04:00 UTC?). Would love to work list members.

Cheers & 72!
Jim -- K5YUT

From qrp-request@Think.COM Sun Jun 13 18:31:26 1993
Date: Sun, 13 Jun 93 10:17:37 HST
From: Jeff Herman <jherman@uhunix.uhcc.Hawaii.Edu>
Subject: 80M VFO xmtr

Aloha from Hawaii!

I just found a neat little book in our library, 101 EASY HAM RADIO

PROJECTS, by Robert Brown (W9HBF/K2ZSQ) and Tom Kneital (K2AES/WB2AAI), circa 1968.

One of the projects is a 2 transistor, VFO, 100 mw output 80 M transmitter; it uses a 2N744 and a 2N852.

If anyone would like a copy, send me a 29 cent stamp and a dime for copying, and I'll forward you a copy.

Uh oh, is this even legal? I think so because the book is out of print... Maybe someone could advise on the legality of this...

Jeffrey Herman, NH6IL, University of Hawaii Mathematics, jherman@hawaii.edu

Mail: P.O. BOX 8282, Honolulu, Hawaii, 96830-0282

From qrp-request@Think.COM Fri Jun 11 15:36:12 1993
Date: Fri, 11 Jun 1993 15:33:00 +0000
From: "Michael (W.M.) Babineau" <babineau@bnr.ca>
Subject: re:Oak Hills Sprint

In message "Oak Hills Sprint" JMG@tntech.edu writes :

>
> My only complaints are it is a DC receiver.. boy are they a different
> animal.. have been using mine with a battery that was low on charge..
> only put out about 1.1 watts.. just changed the battery today and
> putting out about 1.8. The low watts really gets thru.. but a real bear
> with double the noise on the receiver.. one of my biggest complaints is
> that it is way too sensitive to power supply hum.. I tried my best
> filtered supply .. no problem with any other rig (have 6 hooked up
> currently).. had to hook it to battery.. which is the way I will use it
> most of the time anyway.

I seem to recall reading something in one of the ARRL QRP publications, either "QRP Classics" or "QRP Notebook" (most likely this one) about reducing/eliminating power supply hum in DC receivers. If can track it down I'll try to give a short summary.

Michael - VE3WMB

From qrp-request@Think.COM Tue Jun 1 14:15:27 1993
Date: Tue, 1 Jun 93 13:15:01 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: another mini trip

gang,

another trip, two weeks long, to Silver Spring, MD. taking HW-9 with tuner and keyer. that'll slow me down to under 40 wpm. ;-)

asked for room on top floor, non-smoking, outside room. took the travel arrangement lady not to ask why an outside room.... ;-)

ok, anyone near that qth? should put me next to W3TKS (?). can check into the net on sunday and the one on 80 mtrs. Jim Kearman might can hear me this time....

question: any hints on traveling via the airlines (i drove to houston) with this rig. i saw the article in qrp classics. seems like they used metal briefcase. i'm just going to try a box with foam in a suitcase. will have hw-9, tuner/swr bridge, power supply, keyer, and paddle. wire etc. travel light and travel fast.....

thanks,

Chuck Adams, K5FO
CW spoken here....
adams@sgi.com
Southern Education Center
Dallas, TX
(214) 788-4122 (voice)
(214) 788-1376 (fax)

From qrp-request@Think.COM Thu Jun 10 12:46:53 1993
Subject: Anyone shrink an Argonaut??
Date: Thu, 10 Jun 1993 09:39:52 -0700
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>

Hello all:

I am in a serious reorganization of my shack (my finances dictate it!) and will be dumping most of my appliances, to keep about half the money to build up some other gear....with my own hands. That's the plan, anyway.

So....here I have my complete little Argonaut 509 station with all accessories, real cute and I actually use it, but it could generate funds.

Now, has anyone ever chopped up an Argonaut into a smaller, lighter rig? I suspect that the PTO would need to be replaced somehow with something smaller and lighter, and that the bandswitch arrangement

gives a lot of trouble. Anyway, anyone ever try it? If I thought I could tear it down and do something interesting with it, I might just sell off all the accessories but keep the 509 for a portable rig (I like to backpack, have taken the Argonaut along and really had a ball, but it is bulky and heavy which limits the distance I can go with it.)

A second question, related issue: anyone ever replace the silly little 4 pole crystal filter with something better? I know little about crystal filters, so I don't know if I can just go out and buy (or build) a 9 MHz filter and just "stick it in" to the 509. Any pointers to simple articles that could get me up to speed on this?

One more question: Any experience out there with antenna tuners? I am building a QRP Z-match, and am interested in antenna tuner efficiency, how to measure it, etc. I would like to know if there is any win by this design (other than anecdotal evidence.) I have w Varney's article on the improved Z-match where he shows his design to be somewhat better than other Z-match designs, but I am interested in comparisons to my Johnson Matchbox, my Kenwood AT 230 and my Ten Tec AC-5.

72

Clark

.....

Clark Savage Turner, Graduate Student Researcher
Safety Critical Software Group home:
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(714) 856 4049 (714) 856 2131

WA3JPG, QRP #3526, active on HF, VHF and UHF.
Admitted to practice law in California, Massachusetts, and New York.
ARRL Volunteer Counsel

From qrp-request@Think.COM Thu Jun 10 15:02:18 1993
Date: Thu, 10 Jun 93 13:56:15 CDT
From: mstrong@scrap.micro.ti.com (Mike Strong)
Subject: Argonaut 505 For Sale

My daughter's pile of medical bill's is forcing me to sell my Argonaut 505. The radio works fine, and is fun to operate. However, I don't have the time to get on the air right now, and as I said before, I need the cash.

The first \$200 + shipping / OBO gets it.

Please respond to my e-mail address to keep the noise on the list down to a

dull roar.

Thanks and 72, de KT5H Mike Strong mstrong@micro.ti.com

(713) 274-3317 (W)
(713) 341-7980 (H - 6PM - 10PM Central)

From qrp-request@Think.COM Fri Jun 11 01:26:03 1993
Subject: Argonaut 509
Date: Thu, 10 Jun 1993 22:22:12 -0700
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>

OK, ok.....I won't try to chop up my Argonaut. It was just a thought.
A few readers found the suggestion quite offensive :-)

So.....I have an Argonaut 509 with ALL accessories, including the 405
linear and stuff for sale. I will post the details to rec.radio.swap.

Still interested in anyone who has done any controlled comparisons between
the various antenna tuner circuits to see about efficiency. Since I will
be trying to build a station from the ground up, may as well start with
antenna tuners and antenna tuner theory, looks like a fun subject.

72

Clark

.....

Clark Savage Turner, Graduate Student Researcher
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From qrp-request@Think.COM Mon Jun 14 10:01:22 1993
Date: Mon, 14 Jun 93 09:58:11 -0400
From: grib@esvax.dnet.dupont.com (JOSEPH M. GRIB, JR)
Subject: Argonaut 509 for sale

Hi,

I have a Ten Tec Argonaut 509 for sale with a calibrator (that came off
of a Century 21, but works ok) for \$225. Rig works ok, and covers 10-80
meters SSB/CW. You WILL need some type of audio CW filter with it, but

have worked across the big pond several times with it.

Please call

(302) 834-8685 between 3:30pm - 9:00 pm Eastern

From qrp-request@Think.COM Mon Jun 7 12:17:38 1993
Date: Mon, 07 Jun 1993 11:18:09 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: Bencher Paddles

I see a bunch of info on keyers that has Bencher Paddles slung along with it. I am really into keys and paddles. I am really disappointed with my Benchers. Yes you can set them up and do really well with them. The design and implementation are lacking in my opinion. If you hit the corner of the paddles, they fly apart (they might have done something about this in the latest version). I like to set my paddles down to where they are real sensitive.. light touch. The Benchers sure don't handle this well compared to other Paddles I have owned or used. I bought a set of solid brass hand made Schurr paddles for \$95. They WAY better.

I am going to order the Kent Paddles on the list's recommendation. I have played with them a long time back, and finally received ordering info (I send to England for info.. took the roundabout route to get to me). I met someone Sat. at a ham fest that picked the paddle kit up at Dayton. He said an 8 year old could put it together.. they were great and comprable to paddles in the \$200 range.. probably order the straight key kit while I am at it.

Will be happy to sell my mint Benchers if anyone is interested..may still have the original box.

73

Jeff, AC4HF

From qrp-request@Think.COM Wed Jun 16 16:18:31 1993
Date: Wed, 16 Jun 93 16:18:25 -0400
From: Gary Bishop <gb@cs.unc.edu>
Subject: Birdie Question

I found these cheap 10.7MHz SSB filters and am thinking about a 40M rcvr based on them. The obvious mixing scheme is

$7(\text{in}) + 3.7(\text{vfo}) = 10.7(\text{if})$

But it seems to me that I am bound to have a birdie at

7.133MHz because

$7.133 + 3.566 = 10.7$ but

$3.566 * 2 = 7.133$ and

$3.566 * 3 = 10.7$

Am I missing something here?

Maybe this is why 9MHz is so popular as an IF? I remember some charts that predict spurious responses in mixing schemes, I'll have to go back and look at those.

73

Gary, wa4fut

From qrp-request@Think.COM Wed Jun 16 20:13:49 1993

From: Kevin Purcell (Rho) <a-kevinp@microsoft.com>

Date: Wed, 16 Jun 93 17:09:42 PDT

Subject: RE: Birdie Question

You are correct you will have birdies sweeping through the bandpass at different rates (so you can tell what harmonic they are derived from :-).

For QRP SSB perhaps you should consider 17m (18Mhz), fewer big guns that 20m, open more often than 15m, and no birdies. Was it AA2U (see the review in the QQ) worked more than 100 countries in under a year with a Mizuho 18Mhz rig (2W out).

Just a thought.

BTW where did you find these filters?

Kevin Purcell N7WIM / G8UDP

a-kevinp@microsoft.com

"We conjure the spirits of the computer with our spells"

From: Gary Bishop <netmail!gb@cs.unc.edu>
To: <qrp@Think.COM>
Subject: Birdie Question
Date: Wednesday, June 16, 1993 4:18PM

I found these cheap 10.7MHz SSB filters and am thinking about a 40M rcvr based on them. The obvious mixing scheme is

$$7(\text{in}) + 3.7(\text{vfo}) = 10.7(\text{if})$$

But it seems to me that I am bound to have a birdie at

7.133MHz because

$$7.133 + 3.566 = 10.7 \text{ but}$$

$$3.566 * 2 = 7.133 \text{ and}$$

$$3.566 * 3 = 10.7$$

Am I missing something here?

Maybe this is why 9MHz is so popular as an IF? I remember some charts that predict spurious responses in mixing schemes, I'll have to go back and look at those.

73

Gary, wa4fut

From qrp-request@Think.COM Tue Jun 1 15:23:02 1993
Date: Tue, 1 Jun 1993 15:22:53 +0500
From: fkf1@cornell.edu (F. Kevin Feeney)
Subject: BMKULTY and PAKOSON

>

>I'm just a casual RTTY/AMTOR/PACTOR operator, but wanted
>to comment that I am using the BMKMULTY software from the
>BARTG (British) group and find it to be a pleasure to use.

>

>I purchased the PACTOR module and have used it for only
>a couple of contacts on 20M. I also use their TU (the
>MULTY-TERM unit) and it has worked flawlessly for two
>years. Their sw/hw is excellent.

I've heard much the same from a friend of mine that uses their stuff for AMTOR. What is their terminal unit like? I've got a PK232 and would like to use it on PACTOR - I've heard they offer some sort of adaptor to get around the software guts of the 232, but looking at the schematic I can't figure out how they do it (so I can do it - I'd hate to pay \$50 for a 1488 and 1489 :-)) I thought I would try their pactor software and then maybe work my way into the rest if it worked well.

BTW, where is most of the pactor activity. I heard some on 20 the other day.

>
>I recently started using a PASOKON SSTV board in my PC
>and have been bitten BIG TIME by the beautiful SSTV
>images flying on 14.230.

Tell me more - I just talked to John on Saturday and mailed off the check today :-) eagerly awaiting the box to arrive. I've been hearing more SSTV on A013 lately, I guess it's getting fairly popular up there. I'm going to want to give that a try. I've been interested in SSTV for years, and we do some FSTV on 439 around here. But the New Mode Bug was nibbling again...

>One of these days I'm gonna' build an Oak Hills Spirit,
>but first I've got to get a good color frame grabber
>for SSTV :-)
>
>73,
>
>Ken - November Nine Vivid Video
>

Let me know what you come up with. The same question has been on my mind, for this and other things. I have the capability at work to do color frame grabs using ScreenPlay and some other software for the video spigot that we have installed to do CU-SeeMe video, but I don't know if I can massage them into something that the IBM can read. (.PCX, TARGA,.GIF) Have to do some manual reading. Having to bring the camcorder into work to bring home a disk of images wouldn't be so bad. I really want to be able to source images, not just recycle .gif files from BBS's - though that can be fun too. Heard anything about the video spigot for PC's?

73 de Kevin, WB2EMS

F. Kevin Feeney
Network Video Engineer
172 Caldwell Hall
Cornell University
Ithaca, NY 14853-2602
Phone - (607) 255-5186
FAX - (607) 255-5771
EMAIL - fkf1@cornell.edu

From qrp-request@Think.COM Wed Jun 16 16:10:47 1993
Date: 16 Jun 1993 16:06:04 U

From: "Bob Scott" <Bob_Scott@cpqm.saic.com>
Subject: Boatanchors

Subject: Time:16:04
OFFICE MEMO Boatanchors Date:6/16/93
Recently, someone talked about a boatanchors area which sounded like an area where old equipment was being talked about. If someone could point me in the right direction, I would appreciate it. I have tried rummaging around the gnu area, but since I am new to Internet, I could very well be looking in the wrong place. Thanks.
Bob
AC4Q0

From qrp-request@Think.COM Thu Jun 17 08:07:20 1993
Date: Thu, 17 Jun 93 08:07:58 -0400
From: lakeith@wrdis01.robins.af.mil (CONTRACTOR Larry Keith;WR-ALC/653 CCSG/SCDD)
Subject: Re: Boatanchors

In your message of 16 Jun 1993 at 1711 EDT, you write:

> Subject: Time:16:04
> OFFICE MEMO Boatanchors Date:6/16/93
> Recently, someone talked about a boatanchors area which sounded like an area
> where old equipment was being talked about. If someone could point me in the
> right direction, I would appreciate it. I have tried rummaging around the gnu
> area, but since I am new to Internet, I could very well be looking in the wrong
> place. Thanks.
> Bob
> AC4Q0
>
send msg to boatanchors@gnu.ai.mit.edu with "Subscribe" in the subject
and body of the message.

Pass the word! We have a lot of fun on the alias....

73,

Larry KQ4BY

From qrp-request@Think.COM Fri Jun 11 10:40:13 1993
Date: Fri, 11 Jun 93 09:47:58 EDT
From: epacyna@auratek.com (Edward Pacyna)
Subject: Boston Radio Club

At the next meeting (thinks its next wednesday) the Boston radio club has scheduled QRP as a topic. For more details check their repeater on 145.23.

Ed W1AAZ

From qrp-request@Think.COM Thu Jun 17 12:23:41 1993
Date: Thu, 17 Jun 93 11:23:27 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: boxes

i did manage to bring with me one of the alumin boxes mentioned before.

someone in silver spring MD area wanted one. i don't have the info with me. send me email or call me at the marriott courtyard in silver spring, 680-8500 x340. leave message if i'm not there. i moved from the days inn last tuesday and forgot to post that little tidbit. these 80 hr wrk weeks take a lot of energy and resources. my apologies.

i'll catch up when i get back to texas (i hope).

72 de k5fo/3 dit dit

"This is UNIX. I can do this." - Lex in Jurassic Park while sitting in front of an SGI system.

Chuck Adams, K5FO
CW spoken here....70+ wpm
adams@sgi.com
Southern Education Center
Dallas, TX
(214) 788-4122 (voice)
(214) 788-1376 (fax)

From qrp-request@Think.COM Wed Jun 2 10:52:52 1993
Subject: Campbell's R-2 receiver
Date: Wed, 02 Jun 1993 07:50:33 -0700
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>

Just wanted to check if anyone is interested (or has any experience with) the R-2 receiver board (QST Aug '92 and Jan '93). I have had a long time desire to build up an entire station from magazine plans like this. It appears that the direct-conversion design Campbell came up with has pretty decent performance, is reasonably simple, and within my budget.

I plan to purchase his board, then hunt up parts and figure on the alternatives he presents to come up with whatever I think works for me. A friend just handed me four commercial grade mixers - just enough for the R-2 and, if I get that far, the T-2 transmitter strip.

Overall, I will be building for the 40 meter band, though the design will go just about wherever you want it to. If anyone out there does not get QST and is interested in looking at it, check your local library or ask a friend. It is a very clear and easy to read set of articles, really got me interested in building a receiver. I heartily recommend it.

Anyway, my timetable (necessarily slow, trying to finish a degree here.....) is over the coming summer to gather the parts and to fiddle with it and get it working. I will order the R-2 board this week. Depending on how I do, I would like to try the T-2 transmitter (QST May '93), SSB/CW strip to produce a transceiver. Wouldn't it be fun to get on the air - 40 phone - and when the other guy announces with pride "rig here is the Yaesu FT 1000D....", you get to say, "rig here is homebrewed from Campbell's QST articles....."

So, looking for companions in the building, advice and encouragement. I have built lots of Heathkits (even fixed several), can service minor problems in early Kenwood radios, etc....but have never really built from a mere QST article. Here goes.

72

Clark

.....

Clark Savage Turner, Graduate Student Researcher
Safety Critical Software Group home:
Department of Info. and Computer Science 1514 Verano Place
Irvine, CA. 92717 Irvine, CA. 92715
(714) 856 4049 (714) 856 2131

WA3JPG, QRP #3526, active on HF, VHF and UHF.
Admitted to practice law in California, Massachusetts, and New York.
ARRL Volunteer Counsel

From qrp-request@Think.COM Wed Jun 2 12:40:18 1993
Date: Wed, 2 Jun 93 12:12:53 EDT
From: epacyna@auratek.com (Edward Pacyna)
Subject: Re: Campbell's R-2 receiver

Clark

I ordered a R2 board on 12/29/93 and just received it about a week ago after

doing alot of complaining to the ARRL and to the company (who never replied).
Had a simular experience with the company getting R1 boards that I had ordered
(took 3 to 4 months each time).

Now that summer is here I probably won't get around to building the R2 receiver
for a while. I've built several of the R1 receivers and have made a number of
modifications to improve them. However, you will like the way the stock receiver
works.

If you want to keep life simple, look into a Oak Hills kit instead.

73

Ed W1AAZ

From qrp-request@Think.COM Wed Jun 16 21:54:37 1993
Date: Wed, 16 Jun 93 21:54:32 -0400
From: Gary Bishop <gb@cs.unc.edu>
Subject: Cheap Filters

The filters are from Pat Bunn at 624 Kits.

10\$ each
2.4kHz bandwidth
8 poles
10.7MHz center frequency
50 ohms in/out

Seems like they would be ideal for a very simple rcvr or trncvr.

But I hate birdies.....
Gary, wa4fut

From qrp-request@Think.COM Thu Jun 3 18:47:55 1993
From: Stan Witherspoon <stan@hprstw.rose.hp.com>
Subject: Clear plastic with stickum.
Date: Thu, 3 Jun 93 15:47:48 PDT"

Chuck (and all),
for a clear plastic that is photocopyable and has adheasive on the back,
go to a art/graphic supply house and ask for "stickyback". It comes in
8.5" by 11" sheets. I found out about it when my wife took a Landscape
Architecture class. She used it for labels and irregular symbols that
are hard to draw by hand (Their teacher wouldn't let them use a
computer). She just drew what she wanted on our IBM clone and printed it

out on to this film on a laser printer. I think it costs ~\$1.00 per sheet.

72 Stan (N6SCE)

--

```
~~~~~
~   Stan Witherspoon           Hewlett-Packard Co.      (916) 785-5071   ~
~   stan@hprpcd.rose.hp.com    Systems Technology Division   ~
~   Stan (hprpcd) /HP5200/UX   8020 Foothills Blvd.   Roseville, CA 95678   ~
~~~~~
```

From qrp-request@Think.COM Thu Jun 3 09:53:57 1993
From: mvjfm@mvubr.att.com
Date: Thu, 3 Jun 93 09:50 EDT
Subject: Colorburst

Gang

Dont forget to send your logs from the Maydaze Sprint to Jim, KR1S.

Also, It is pretty lonely on 3.579MHz these dayze.
Except for W1AW (who never answers my calls) there are only a
few TV set oscillators (who never answer my calls either).

72, Jim - W1FMR mvjfm@mvubr.att.com

From qrp-request@Think.COM Thu Jun 3 12:28:22 1993
Date: Thu, 3 Jun 93 11:28:08 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: Re: Colorburst

Jim - W1FMR gives us a real sad story of how lonely it is on 3.579MHz
these dayze (sic). HEY, if you wanna work the audio bands that's ok
with me. ;-) all laws of propagation are off at those frequencies
anyway.

i'll look for you when i'm in MD next two weeks. give me your operating
times. after midnight is NOT a good time for me. i'll be bone dead
tired after standing 8 hrs a day teaching.

72 de k5fo dit dit

Chuck Adams, K5FO
CW spoken here....
adams@sgi.com
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(214) 788-4122 (voice)
(214) 788-1376 (fax)

From qrp-request@Think.COM Wed Jun 16 09:24:19 1993
Date: Wed, 16 Jun 1993 08:24:10 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: contest

The major German QRP contest will be held soon:

I took the original rules from a paper sheet and scanned it.
I tried to eliminate the major scanning errors and the most evident
grammar/orthography errors.
I plan to send it to the qrp mailing list. However, I am not on the
list any more. I had to sign off due to considerable net instabilities.
Did you know this contest?

Q R P - S U M M E R - C O N T E S T

Date: 3rd complete weekend in July.

Time: From 1500 UTC on Saturday to 1500 UTC on Sunday. It is
stipulated to pause for minimum nine hours. The pause
can be taken in one or two periods.

Participants: single OP in CW-mode on 3.5, 7, 14, 21, 28 MHz.
Only one TX and RX or TRX are allowed to be used at the same
time. QSO with stations not taking part in the contest are valid, too.
Reception of RST is sufficient from noncontest stations. Contest
stations exchange RST / serial number/category. Respect IARU
recommended subbands for contest operation.

Categories: VLP very low power, up to 1 W out or 2 W Input
QRP "classic" QRP, up to 5 W out or 10 W input
MP moderate power, up to 25 W out or 50 W input
QRO above 25 W out or 50 W input

QSO between QRO stations are not allowed!!

Points: Every QSO with a station on the same continent counts 1
point, with a DX-station 2 points. The contest manager
will add 4 points for QSO with VLP, QRP or MP

stations having submitted their log.

Multipliers: Each DXCC country counts one multiplier per band. The contest manager will calculate 2 multiplier points for each DXCC country worked for every QSO with VLP, QRP or MPstations having submitted their log.

Final score: The sum of the QSOpoints multiplied with the multiplier points sum. Necessarily, the final calculation will be done by the contest manager.

Logs: Please list QSOs separately for every band and mark your claimed multipliers. The pause or pauses and the output (respectively your input of all used transmitters must be mentioned, more details of the rig being used are appreciated. Please do not forget you complete address and an IRC if a result list is wanted. Your QSO partner will get full account of your points only if you send in your log.

Deadline: 15th of september. Send your logs to: Dr. Hartmut Weber DJ7ST
Schlesierweg 13, D-W3320 Salzgitter, Germany
(The zip code expires on July 1, 93. The unified Germany will have a 5 digit zip code from that date on).

--

Martin A. Zurn

(Internet: martin.zurn@jrc.it)

From qrp-request@Think.COM Fri Jun 18 10:17:09 1993
From: martin.zurn@cen.jrc.it (Martin Zurn)
Subject: Contest AGCW address update
Date: Fri, 18 Jun 1993 16:16:40 +0200 (MET DST)

Hi QRP fans,

I am Martin, IK2RMZ, and I'm something like the 'Foreign Affairs' officer in the German CW club AGCW (>2000mbrs)

Recently I asked a friend to send this info the list.
(I had to QRT from the list owing to local network problems)

The only missing thing was the zip code of the contest manager:
I just found out that the NEW zip code of Salzgitter is 38228.
PLEASE USE THE NEW ZIP when u send ur log to him

This is the info again:

Q R P - S U M M E R - C O N T E S T

Date: 3rd complete weekend in July.

Time: From 1500 UTC on Saturday to 1500 UTC on Sunday. It is stipulated to pause for minimum nine hours. The pause can be taken in one or two periods.

Participants: single OP in CW-mode on 3.5, 7, 14, 21, 28 MHz. Only one TX and RX or TRX are allowed to be used at the same time. QSO with stations not taking part in the contest are valid, too. Reception of RST is sufficient from noncontest stations. Contest stations exchange RST / serial number/category. Respect IARU recommended subbands for contest operation.

Catetories: VLP very low power, up to 1 W out or 2 W Input
QRP "classic" QRP, up to 5 W out or 10 W input
MP moderate power, up to 25 W out or 50 w input
QRO above 25 W out or 50 W input

QSO between QRO stations are not allowed!!

Points: Every QSO with a station on the same continent counts 1 point, with a DX-station 2 points. The contest manager will add 4 points for QSO with VLP, QRP or MP stations having submitted their log.

Multipliers: Each DXCC country counts one multiplier per band. The contest manager will calculate 2 multiplier points for each DXCC country worked for every QSO with VLP, QRP or MPstations having submitted their log.

Final score: The sum of the QSOpoints multiplied with the multiplier points sum. Necessarily, the final calculation will be done by the contest manager.

Logs: Please list QSOs separately for every band and mark your claimed multipliers. The pause or pauses and the output (respectively your input of all used transmitters must be mentioned, more details of the rig being used are appreciated. Please do not forget you complete address and an IRC if a result list is wanted. Your QSO partner will get full account of your points only if you send in your log.

Deadline: 15th of september. Send your logs to: Dr. Hartmut Weber DJ7ST
Schlesierweg 13, 38228 Salzgitter, Germany

--

Martin A. Zurn

(Internet: martin.zurn@jrc.it)

From qrp-request@Think.COM Wed Jun 9 10:31:54 1993

Date: Wed, 09 Jun 93 14:21:32 GMT

From: jkearman@arrl.org (Jim Kearman)

Subject: CW Crystals

I've recently posted about this company, that advertises in QST Ham Ads. It's a one-person shop, making only FT-243 ham-bands crystals.

I sent them an order in April, and just called to inquire as to its status. They've been swamped with orders! and are behind. Bob's wife told me they'd try to ship my xtals next week. So, if you're planning to order, you should expect to wait a while. Still, at \$3.95 per rock, the price is good. He recycles old FT-243 holders.

73, Jim

From qrp-request@Think.COM Fri Jun 4 15:55:09 1993

From: jpo@acd4.acd.com (Jim Osburn)

Subject: Front Panel Markings

Date: Fri, 4 Jun 93 8:10:04 EST

Chuck Adams writes:

>

>

> speaking of, anyone know of a photocopiable clear plastic with gummed
> backing. this would be neat stuff for hobbists. i have program to
> create panels, dial markings etc., but don't have silk screen capabilities
> (ooops spelling error) to get the final layout to the paint.

>

>

I have an idea to try as experiment.

Somebody mentioned earlier that they make PCB's by ironing laser printer output on plain paper onto the blank boards.

The heat transfers the toner to the PCB and the toner becomes the resist.

Maybe you could do the same trick to make front panel markings.

Of course you would have to print the markings as a mirror image.

Jim, WD9EYB

From qrp-request@Think.COM Sun Jun 6 11:18:28 1993

Date: Sun, 06 Jun 1993 09:17:45 EDT

From: "Fred Cady ieeefc@msu.oscs.montana.edu" <fred_c@ece.ee.montana.edu>
Subject: Front Panel Markings

I use xeroxable overhead transparencies for the front panel markings and then apply with double sticky tape. Looks pretty good. You do have to completely cover the area with the double sticky tape or else you get a slight space between the transparency and the cabinet that shows up on close inspection.

From qrp-request@Think.COM Sat Jun 5 13:39:40 1993
From: vikki@precipice.chi.il.us (Victoria Welch)
Subject: Re: Front Panel Markings
Date: Sat, 5 Jun 1993 12:21:24 -0500 (CDT)

In your article <9306041310.AA17727@IEDV2.acd.com> ["Front Panel Markings"], you wrote:

> Chuck Adams writes:
>
> >
> >
> > speaking of, anyone know of a photocopiable clear plastic with gummed
> > backing. this would be neat stuff for hobbyists. i have program to
> > create panels, dial markings etc., but don't have silk screen capabilities
> > (ooops spelling error) to get the final layout to the paint.

There was an outfit called Bishop Graphics back when I did PCB layout the old fashioned way that put out 8.5*11 sheets of sticky backed mostly clear plastic adhesive that was suitable for running through copy machines and I would assume laser printers as well. I still have a few sheets of this and it works quite well with photocopiers. If they are still around they might still have this. It wasn't cheap as I recall and you needed to spray it with clear plastic to keep from loosing the lettering/graphics from wear. I did some nice panels with this stuff and a four color copier ! For what its worth, it doesn't work with inkjets :-).

Another alternative would be graphics art supply stores, I know stuff like this exists there as well. You would have to see if it works and select the best kind. Can't help much more than that as I don't do graphic arts stuff without a computer anymore - I just create camera ready stuff :-).

Hope this helps !

Take care es 72, Vikki.

--

Vikki Welch, SysAdm Welch Research, WV9K, DoD#-13, NEIQR# 13, ARCI#(NOT)
vikki@precipice.chi.il.us(daily), vikki@wv9k.atl.ga.us(weekly)

From qrp-request@Think.COM Wed Jun 2 10:16:52 1993
From: hpb@hpb.cis.pitt.edu (Harry Bloomberg)
Subject: Half-square antenna
Date: Wed, 2 Jun 93 10:16:44 EDT

Thanks to all who replied to my email about half-square antennas.

I realize now that I may have been unfair in my testing of the 20M half-square antenna. I was comparing it at a height of 16 feet against another antenna at 30 feet. This could be a classic apples-and-oranges error in logic. The key words in any testing methodology are "All things being equal..."

When I get the time, I'll conduct two tests:

- Half-square vs dipole at 16 feet. This should be interesting because at that height, a 20M dipole should have a fairly high angle of radiation and therefore be a poor DX antenna. I *did* hear a fair amount of DX with the half-square at this height - will I hear the same DX with the dipole?

- Half-square vs inverted V at 30 feet. The whole point of this exercise is to see if the half-square will outperform my trusty inverted V. Time to break out the slingshot and throw some rope over the highest branches!

Harry Bloomberg WA3TBL
hpb+@pitt.edu

From qrp-request@Think.COM Wed Jun 2 11:35:27 1993
Date: Wed, 02 Jun 1993 04:41:07
From: hlester@as.arizona.edu (Howard Lester)
Subject: Re: Half-square antenna

> I realize now that I may have been unfair in my testing of the
>20M half-square antenna. I was comparing it at a height of 16 feet against
>another antenna at 30 feet. This could be a classic apples-and-oranges
>error in logic. The key words in any testing methodology are "All
>things being equal..."

> - Half-square vs dipole at 16 feet. This should be interesting
>because at that height, a 20M dipole should have a fairly high angle of
>radiation and therefore be a poor DX antenna. I *did* hear a fair
>amount of DX with the half-square at this height - will I hear the same

>DX with the dipole?

>Harry Bloomberg WA3TBL

The literature on the half-square (and I actually spent \$7 for the 'tech-notes' for this antenna) promotes its low-mounting capability. That is, it can be mounted low to the ground and still get a low angle of radiation. (Antennas West says that, not me.)

My 30m dipole at 17' (7' above my flat roof surface) does fairly well, in my estimation, with DX on 20m. I have no complaints about its performance.

Howard

From qrp-request@Think.COM Tue Jun 1 11:17:55 1993
From: hpb@hpb.cis.pitt.edu (Harry Bloomberg)
Subject: Half-square antennas
Date: Tue, 1 Jun 93 11:17:11 EDT

I had a blast in the DX contest this weekend with my HW-9. I easily worked about 20 countries on 20M in about 4 hours of operation. After the contest, I made some friendly QSO's with Europeans and consistently received 569 signal reports with nothing more than a 20M inverted V for an antenna. The band was in really good shape!

Have any of you tried the half-square antennas made by Antennas West? This is a wire antenna that consists of a top-fed quarter-wave radiator, a 1/2 wave phasing element, and another quarter-wave element. Antennas West says this antenna compares well to yagis, and the price was reasonable (\$50), so I thought I'd give it a try and compare it against my inverted V that's up in a tree about 30 feet.

I installed the antenna at a height of about 18 feet. Due to my lack of level terrain, the driven element was about 1-2 feet off the ground, and the other quarter-wave element was just skimming the ground. I was careful to set it up so that it would be broadside to Europe.

I was greatly disappointed with the results. My testing method was to contact a European station on 20M SSB at 100W and ask him which antenna produced the stronger signal. In all cases, the inverted V was 2 S-units stronger than the half-square. Received signals were also 2 S-units weaker, with some signals much weaker. There was never a signal received by the inverted V that came in stronger on the half-square. The only advantage to the half-square was that it picked up much less atmospheric noise.

Have any of you tried the half-square? Did you have better results?

Was I expecting too much out of it? I suppose that I would have not been so disappointed if not for the hype in the Antennas West catalog. They make this antenna sound like the greatest discovery since Marconi! For now, I think I'll stick with the inverted V. It works well, and it cost far less than \$50 to make!

Harry Bloomberg WA3TBL
hpb+@pitt.edu

From qrp-request@Think.COM Tue Jun 1 13:29:17 1993
Date: Tue, 1 Jun 93 13:27:55 -0400
From: jpb@ll.mit.edu (John Paul Braud)
Subject: Re: Half-square antennas

[Harry Bloomberg asked about half-square antennas, disappointed in the performance of one he had bought.]

I've used one and was reasonably happy with it. Mine was a homebrew affair cut for 20m. I did not have another antenna for side-by-side testing however, so I can't say too much about how it compares to any other antenna. I did manage to trim it to make a tuner unnecessary. Didn't have much luck using a tuner to load it up for other bands; that was a disappointment. The nice feature for me was convenience of installation: my shack is on the second floor, about a quarter-wavelength up from the ground and with a tree about half a wavelength away from the window, so the half-square fit very well.

It sounds like the manufacturer over-hyped it a bit. It's a decent enough antenna, but hey, with only two elements you're not going to get a lot of gain. As for the price, there is no reason you couldn't build a half-square for about the same modest price as an inverted-V. After all, there's just an extra half-wavelength of wire required. I wouldn't expect the antenna company to say that, though. :-)

Harry's comment that the half-square seemed to pick up less atmospheric noise than his inverted-V is interesting. I wonder why this would be. Low gain in the direction of the thunderstorms responsible for the noise?

For me, the half-square was a workable design that allowed a discreet installation and kept my transmitter happy. Not miraculous, but good.

From qrp-request@Think.COM Wed Jun 2 14:53:57 1993
Date: Wed, 2 Jun 93 13:53:45 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: Hamcom

as we've mentioned before, Hamcom is this weekend here in the big D area. oooops. that's Dallas for the international crowd. Texas humor. :-)

Rev George Dobbs is here from England. Paula and the gang from QRP ARCI will be here and some others that i probably left out.

i'm taking a shopping list to this thing. about 10,000+ critters (people) will be here along with the usual texas critters too.

is there some qrp stuff that you're looking for? just gotta have or want info on. let yours truly know and i'll try to shop around for it. i won't be carrying that much cash, but i can tell them to get in touch with you.

heard that S&S engineering will be here and i'm anxious to see the synth. rig. should be a good turnout. i'll have a chance to scout around on friday night from 5pm to 9pm for the early bird specials.

BTW - has KA7??? come out with a new list of components? i was going to send him a SASE and include his list with the schematics.

i think i now have

hw-7

hw-8

hw-9

heath qrp wattmeter

heath qrp tuner

argosy 509

kanga kits

mxm superRX

w7el rig

two fer

the japanese handheld

schematics in the collection. i'm putting it together tonight and will post summary tomorrow and let you know what the printing cost is gonna be. a real bargain. only problem will be a two week delay as i'll be working dx from MD (3 land).

tnx de k5fo/5 es k5fo/3 dit dit

Chuck Adams, K5FO

CW spoken here....

adams@sgi.com

Southern Education Center

Dallas, TX
(214) 788-4122 (voice)
(214) 788-1376 (fax)

From qrp-request@Think.COM Fri Jun 11 12:37:50 1993
Date: Fri, 11 Jun 93 11:37:39 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: Hamcom

sorry for the delay of reporting on Hamcom last weekend, but i left town (dallas) almost immediately afterward and have been /3 this week and will be here another week. qth is silver spring md at the marriott courtyards. i moved outta the days inn. ;-)

hamcom didn't seem quite as busy as last year, maybe due to economy, not sure. usually about 10,000 or so but may have been only 7-8K this year. of course, i didn't win the big prize again.

qrpers there.

rev george dobbs from uk
rev les smith from uk
paula frank, pres of qrp arci
luke dodds, sec/treasurer of qrp arci
mike, membership chairman of qrp arci
burl keeton, one of board members of qrp arci

qrp arci had hospitality suite at marriott courtyard in arlington both friday and saturday nites. doc drake W5TB had hw-8 there and saturday nite, dick from s&s engineering had his synth. rig there. worked great and it was the 40 meter rig. see below.

funniest person there was roger rose, w5lxs, who is from midland tx and runs some of the nets regularly for qrp qrci. i didn't take notes, but he works for at&t and sits around thinking of funny code combinations with unusual rhythms. i was from midland a long time ago and knew roger back in the 60's.

rev george dobbs gave two hr forum on home brewing. very good and his talk was well attended. g-qrp had booth adjacent to qrp arci booth. g-qrp brought some of their kits and they seemed to sell quite a few. i personally didn't buy anything, since i've run outta room on the desk and workbench. ;-)

ten tec forgot to get booth, thus didn't show up. so i didn't get to see their new 'scout'. it's the new rig with plugin modules for each band. rig about \$495 and modules \$25 each. high dollar rig for 50W and qrp work.

s&s engineering showed their 40 meter synth. rig. extruded alumin. case and they advertise in 73 and/or CQ magazine. i don't have details with me. available 40 meters only now. nice boards (two) with builtin keyer, etc. assembly manual, schematics, etc. was great. Komb binding and about 100+ pages.

mxm industries, bruce williams WA6IVC, showed his kits at the flea-market.

at the flea market saw one hw-7 and one hw-8. nothing else. qrp rigs are being held onto and/or sold immediately. argonaut 509 for \$300, but it didn't sell, even though it was clean. probably too high of a price.

we had one member of this net from rochester NY at the suite on friday nite. he was scheduled for trip to dallas and made it over. i'll let him announce his impressions, etc., if he so desires.

i ran the cw contest. three guys neck and neck to 45 wpm. separated by only a sentence or two between first and third place. i'm not being threatened yet..... ;-)

i'll fill in details as they come to mind.....

for now 72 de k5fo/3 dit dit

Chuck Adams, K5F0
CW spoken here....70+ wpm
adams@sgi.com
Southern Education Center
Dallas, TX
(214) 788-4122 (voice)
(214) 788-1376 (fax)

From qrp-request@Think.COM Tue Jun 8 17:26:52 1993
From: J. Sherwood Williams <jwill@cabell.vcu.edu>
Subject: Heathkit GD-125
Date: Tue, 8 Jun 93 17:26:42 EDT

Hi all,

I know this isn't a really QRP question, but so many experienced hams read the list, I thought It might be worth a shot.

I bought a thingie at a recent hamfest, but don't know what it is, how to hook it up, etc... Any Ideas? It is a Heathkit GD-125 "Q-Multiplier and plugs into the wall (110VAC) but has one single phono jack for any sort of Input/output. I am wondering: what is this thing?? What does it hook to? Should I keep it or make plans to turn it into a QRP rig's case? (the reason I paid the \$2.00 for the thing in the first place) Any info would be appreciated.

Robert S. Williams

From qrp-request@Think.COM Tue Jun 8 18:27:47 1993
Date: Tue, 08 Jun 1993 15:27:54
From: hlester@as.arizona.edu (Howard Lester)
Subject: Re: Heathkit GD-125

>I bought a thingie at a recent hamfest, but don't know what it is,
>how to hook it up, etc... Any Ideas? It is a Heathkit GD-125
>"Q-Multiplier and plugs into the wall (110VAC) but has one single
>phono jack for any sort of Input/output. I am wondering: what is this
>thing??

Obviously, it multiplies Q's. That was old technology. In the 90's you want to look for a W-Mulitplier. :)

My first receiver was a Hammarlund HQ-110A, and it had a Q-multiplier. A turn of the front panel knob narrowed the received signal's bandwidth very, very nicely. I'd guess that, in order to make use of your newly acquired thingie, it has to be incorporated into your receiver's circuitry. I'm sure one of the technoids can give you the right advice as to installation.

From qrp-request@Think.COM Wed Jun 16 03:20:42 1993
From: J. Sherwood Williams <jwill@cabell.vcu.edu>
Subject: Help: need torroid cores.
Date: Wed, 16 Jun 93 3:19:20 EDT

I want to build the 80 Meter colorburst transmitter. I have the plans (thanks). I have found two RS Colorburst Xtals. I have even ordered the boards from far circuits. I can get the transistors locally, the other parts are in my junk box.

All I need are the torroid cores! I need 6 T-50 and four FT37-43 cores to make two of the transmitters. Could someone send/sell me the cores? I am sure there must be some of you QRPers out there who have a stash of cores leftover and wouldn't mind unloading a few to me, the small, low volume, low budget, low power guy.

So, howaboutit? Could some kindly soul tape the cores to an index card, stuff it in an envelope, and drop it in a mailbox? I'll gladly offset your expenses with a check.

Robert S. Williams
612 West Franklin St. Apt 7D1
Richmond, VA. 23220

From qrp-request@Think.COM Wed Jun 2 18:13:22 1993
Date: Wed, 02 Jun 1993 17:13:32 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: Help:QRP kits

All,

I am finishing up an article and could really use this groups collective expert advice to ensure I am fairly accurate.

I would appreciate input on the following kits: A&A Gary Breed, Oak Hills Sprint (W7EL), the Gary Breed kit by 624 kits, the Gary Breed right out of QST or the ARRL Handbook.

Info:

1. how was it to build
2. If instructions...how complete and easy to follow
3. how does it work.. is it as advertised
4. how selective, sensitive is the reciever
5. how is the audio quality of the receiver
6. how many watts does the tx put out and how clean
do you feel the output is
7. what kind of reports do you get
8. would you buy it again
9. what do you like and dislike about the:
 - a. kit
 - b. instructions
 - c. operation of the rig
10. what was the quality of the boards like

thanks to any who help.

Jeff,AC4HF

From qrp-request@Think.COM Tue Jun 8 18:56:38 1993
Subject: Hollow State QRP
Date: Tue, 08 Jun 93 15:56:33 -0700
From: Jeff McLeman <mcleman@nthead.zso.dec.com>

Anyone playing with Hollow State QRP? I dug out an old 6L6 xmitter that i used a few years ago in the Antique Wireless contest.

Now, if only I had a National NC173/183 to go with it..... (should have never sold mine).

Of course backpacking in the mountains with those A and B batteries....

72 de jeff -- KD1IT / 7

From qrp-request@Think.COM Tue Jun 8 20:51:25 1993
Date: Tue, 8 Jun 93 17:51:15 PDT
From: "five easy pieces, put 'em together" <brewer@anarky.enet.dec.com>
Subject: Hollow state QRP

>Anyone playing with Hollow State QRP? I dug out an old 6L6 xmitter
>that i used a few years ago in the Antique Wireless contest.

>Now, if only I had a National NC173/183 to go with it..... (should
>have never sold mine).

>Of course backpacking in the mountains with those A and B
>batteries....

>72 de jeff -- KD1IT / 7

Hi Jeff,

I MIGHT sell you back the Heath QF-1 Q-Multiplier I got when you were selling the 183!! :-)

Actually I am restoring a NC183 presently and hope to use the lil' heath box with it.

73

/john

wb5oau

From qrp-request@Think.COM Wed Jun 9 08:16:59 1993
Date: Wed, 9 Jun 1993 7:15:22 -0500 (CDT)
From: James Speer <F_SPEERJR@CCSVAX.SFASU.EDU>
Subject: Hollow State QRP

I worked N0JP on 30m the other day. He (Ken) was running a new, homebrew hollow state rig with 6 (six, not five) watts out. Close, I guess.

72!
Jim -- K5YUT

From qrp-request@Think.COM Wed Jun 9 07:57:49 1993
Date: Wed, 9 Jun 93 07:57:26 -0400
From: lakeith@wrdis01.robins.af.mil (CONTRACTOR Larry Keith;WR-ALC/653 CCSG/SCDD)
Subject: Re: Hollow State QRP

In your message of 8 Jun 1993 at 1941 EDT, you write:
> Anyone playing with Hollow State QRP? I dug out an old 6L6 xmitter
> that i used a few years ago in the Antique Wireless contest.
>
> Now, if only I had a National NC173/183 to go with it..... (should
> have never sold mine).

Come join us on the boatanchors alias.....You can probably find one!!

Larry KQ4BY

From qrp-request@Think.COM Mon May 31 02:13:28 1993
Date: Sun, 30 May 93 23:11:55 PDT
From: dh@deneb.csustan.edu (Doug Hendricks)
Subject: HootOwl Sprint

OK, Here is the report from the West Coast on 40. Made 8 Qso's in 3 hours, worked KI6SN, W6SKQ, KB6WB, W6DVO, W6CTO, N7MFB, W6SIY, & W5DL0. KI6SN said that he made 9 qso's, using Spider SP-1 Xtal control. I used Icom 735 with W3TS qrp mod and Skelton Cone. How did the rest of you do? Thanks to the East Coast for going to bed early guys. The band made me feel like the Maytag repairman. Haw Haw. Cul, 72, doug
KI6DS

From qrp-request@Think.COM Tue Jun 1 10:26:57 1993
Date: Mon, 31 May 93 06:43:50 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: HootOwl Sprint

worked two guys in 20 minutes on 40 meters. qrn and qrm was real bad. kf0n and k8nqc (he was real loud). thunderstorms in area made the qrn real bad.

heard couple of other stations, but they were working east coast. so much for band conditions this time.

72 de k5fo dit dit

Chuck Adams, K5F0
CW spoken here....
adams@sgi.com
Southern Education Center
Dallas, TX
(214) 788-4122 (voice)
(214) 788-1376 (fax)

From qrp-request@Think.COM Mon Jun 14 11:40:20 1993
Date: Mon, 14 Jun 93 10:54:30 EDT
From: epacyna@auratek.com (Edward Pacyna)
Subject: Hum in DC receivers

Kevin Purcell K7WIM recently posted some bandaids on the subject.

I would also like to point out that there are receiver design issues that will take care of the hum.

If your audio stages are good to DC (or very low frequencies), any trace of hum actually gets amplified. Instead, have each stage begin rolling off at 300Hz or so. All you need to do is select the value of the stage(s) coupling capacitor(s). $C = 1 / (2 \times \pi \times R \times F)$

Stay away from low pass filters in your audio chain (they pass everything from Fc down to DC). Use bandpass filtering instead. As a side note, I usually use elliptical designs (switched C) or stagger tuned active filters (adjusting stage Fc's & Q's) to get a flat passband and really steep filter skirts (no needle noses, ringing and lousy stopband rejection).

Both of the above will get rid of a lot of QRM as well.

Use a mixer with good port to port isolation and terminate all the ports properly.

Also, you could use a good RF amplifier on the mixer RF port to isolate it (and the VFO) from the antenna.

The real weakness in DC receivers is the double image reception. I use the following techniques to overcome this weakness. If the RIT only tunes the side of zero beat of interest, you won't get confused will always transmit on the correct frequency and as you tune the RIT an image signal causing QRM will change frequency in the opposite direction (allowing copy of the desired signal). If you want to get real fancy, use a tuned notch filter. The design in "Better Ears for the MAVTI" is simple and works well.
pposite

73

Ed W1AAZ

From qrp-request@Think.COM Tue Jun 8 09:53:47 1993
From: jpo@acd4.acd.com (Jim Osburn)
Subject: I Now Have Two HW-8's
Date: Tue, 8 Jun 93 8:39:08 EST

This weekend at the Evansville hamfest, there was an HW-8 that I could not resist. I now have two of them.

The HW-8 that I have had for about a year is modified but works just fine. My new HW-8 is stock according to the seller. It seems to work fine too except for one problem the other HW-8 doesn't have, it receives the local country and western AM station. It does it on all bands. I have a hunch that is a fairly common problem, perhaps someone on the net knows the cure for it.

Thanks,

Jim, WD9EYB

From qrp-request@Think.COM Tue Jun 1 05:42:11 1993
From: Simon Browne <esrlb@csv.warwick.ac.uk>
Subject: IC-735 on QRP
Date: Tue, 1 Jun 1993 10:41:38 +0100 (BST)

Just a short note for those who have a 735 and may be unaware that it's actually very easy to set the thing to operate QRP without having to apply a negative voltage to the ALC socket. All that is necessary is removal of the bottom cover, and adjustment of one pot., so it's as easy as falling off a log really.

There's one pot for setting the high power level, one for setting the low power level, and a small switch to set the max Po to 50W. The pots have 'HI' and 'LO' marked on the board next to them. They're located at the back of the main board, very close to the ALC jack. If you connect the output to a dummy load, set the meter to power out, and the RF POWER slider to minimum, just vary the 'LO' pot and watch the power out fall. I didn't have an external power meter here when I did the mod, so couldn't say how low you can adjust the power, but I'm sure it could go down to a watt, maybe less.

If anybody has any questions, feel free to e-mail.

Simon GOGWA.

--

Simon Browne		es237@eng.warwick.ac.uk
Communications Lab.		esrlb@csv.warwick.ac.uk
Engineering Dept.		
Warwick University		0203-523523 extn 2548.
Coventry, UK.		

From qrp-request@Think.COM Wed Jun 16 17:00:23 1993
Date: Wed, 16 Jun 1993 14:00:28
From: hlester@as.arizona.edu (Howard Lester)
Subject: Jim Beam

Can any of you genuises tell me how to build a 2 or 3-el shortened 17m beam, with relatively thin aluminum elements? My flat roof and neighborhood asethetics can support something the size of a 10m or 12m beam about 5 or 6 feet off the roof (thus some 16 feet off the ground).

Howard KE7QJ

From qrp-request@Think.COM Wed Jun 2 09:39:26 1993
Date: Wed, 02 Jun 1993 08:39:24 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: Kent Paddles

Hi,

Has anyone had experience with Kent Paddle Kits.. thinking about ordering the straight key and paddles...

thanks

73
Jeff,AC4HF

From qrp-request@Think.COM Wed Jun 2 15:20:09 1993

Date: Wed, 2 Jun 1993 15:16:50 -0400 (EDT)
From: Robert Marlan <rsm@world.std.com>
Subject: Re: Kent Paddles

On Wed, 2 Jun 1993, Jeff M. Gold wrote:

> Hi,
>
> Has anyone had experience with Kent Paddle Kits.. thinking about
> ordering the straight key and paddles...
>
> thanks
>
> 73
> Jeff,AC4HF

yes ! I bought the iambic key in dayton!
nice looking, and EXCELLENT bearings,
in my opinion = to some of the \$300 keys.

I can dig up the US sales guy if your interested, they are made in
England. I am very happy with mine - blows away the bencher and
the brass racer IMHO!
bob Ka6noc/1

From qrp-request@Think.COM Fri Jun 4 20:37:09 1993
Date: Fri, 4 Jun 93 17:35:32 PDT
From: dh@deneb.csustan.edu (Doug Hendricks)
Subject: Keyer Info

I am in the market for a memory keyer. Anyone have any suggestions? What
about the MFJ Bencher/memory keyer combo? How about the Heathkit, the one
with the keypad entry and the capacitance touch paddles? 72, Doug

From qrp-request@Think.COM Fri Jun 4 23:26:00 1993
Subject: Re: Keyer Info
Date: Fri, 04 Jun 1993 20:25:46 -0700
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>

Doug Hendricks is interested in a Memory Keyer. My own take on this situation
is that the CMOS Super Keyer II in the (nov?) 1990 QST is easy to build
and has adequate memory for my contesting tastes. It is really great

to operate, cheap, etc. Love it to death. Really. The feel of the keyer is far better than any other I have ever used. Now if I could just find the right paddles (Bencher is "adequate" for the job.)

The only possible drawback is the amount of memory and the basic 4 locations for those memories. If you get real fancy with contesting, it may not do the trick. If you are interested, write me directly and I can tell you more about my experience with the CMOS Super Keyer II.

Clark

.....

Clark Savage Turner, Graduate Student Researcher
Safety Critical Software Group home:
Department of Info. and Computer Science 1514 Verano Place
Irvine, CA. 92717 Irvine, CA. 92715
(714) 856 4049 (714) 856 2131

WA3JPG, QRP #3526, active on HF, VHF and UHF.
Admitted to practice law in California, Massachusetts, and New York.
ARRL Volunteer Counsel

From qrp-request@Think.COM Mon Jun 7 11:15:10 1993
Date: Mon, 7 Jun 93 08:06:47 PDT
From: ed@imp.pnl.gov
Subject: RE: Keyer Info

> I am in the market for a memory keyer. Anyone have any suggestions? What
> about the MFJ Bencher/memory keyer combo? How about the Heathkit, the one
> with the keypad entry and the capacitance touch paddles? 72, Doug
>

I've tried a number of keyers and for my money the LogiKey works the best, very smooth operation and you control it with four switches and CW. Only four memories, so that might be a problem, though entering new info into a memory is easy. I think it has been written up in most of the ARRL Handbooks in the last few years and ads are in QST and CQ, etc. You can control a lot of parameters, including an adjustment for rigs that shorten the first element when operating full QSK.

72 de N7YQR Ed

~~~~~  
~ Edward W. Kleckner K6-84 Internet: ew\_kleckner@pnl.gov ~  
~ Battelle Northwest n7yqr@amsat.org ~  
~ Battelle Blvd. Packet: N7YQR@WA7EAQ.WA.USA.NA ~  
~ Richland, Washington Voice: (509) 376-8425 ~

~ 99352-0999

FAX:

376-5368 ~

~~~~~  
From qrp-request@Think.COM Mon Jun 7 11:27:45 1993
Date: Mon, 07 Jun 93 15:25:41 GMT
From: jkearman@arrl.org (Jim Kearman)
Subject: Re: Keyer Info

I don't think the MFJ memory keyer is offered as a pkg with the Bencher paddle. The black keyer that sits on top of the Bencher is not a memory keyer. I could be out of date. . . .

I use an AEA MM-3 keyer. I replaced some of the chips with CMOS equivalents, so the power requirement is low.

Of course, the newer CMOS keyer from Bencher is quite nice, and small. You program it from the paddle. You can buy it in kit form from Bencher, tho they don't advertise the kit.

Jim

--
jkearman@arrl.org

From qrp-request@Think.COM Mon Jun 7 11:33:28 1993
Date: Mon, 07 Jun 1993 08:33:23
From: hlester@as.arizona.edu (Howard Lester)
Subject: Re: Keyer Info

>From: dh@deneb.csustan.edu (Doug Hendricks)

>I am in the market for a memory keyer. Anyone have any suggestions? What
>about the MFJ Bencher/memory keyer combo? How about the Heathkit, the one
>with the keypad entry and the capacitance touch paddles? 72, Doug

I have the MFJ \$50 econo-keyer, and it works fine for me. It may, however, be a 9V battery eater, so be prepared to either get a 9V nicad, as I did, or a 9V battery eliminator power adapter do-jigger.

I also, have the, uh, *ahem!* Vibroplex brass racer paddle. The combination of the above two is a lot less expensive than the MFJ/Bencher combo, and is a lot better looking!

Howard KE7QJ

"No one uses 20-meters anymore; it's too crowded" - Yogi "the fist" Berra

From qrp-request@Think.COM Mon Jun 7 12:06:12 1993
Date: Mon, 07 Jun 1993 11:05:44 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: Keyers

HI,

I agree, my first ham radio kit was the Super keyer using the Idiom Press parts kits. The keyer without even the memory is worth the price. It has the best self-completing dots and dashes and feel I have ever used. I have built at least 4 keyers (avoid the "Cheap Keyer" from the Handbook.. the worst.. I use it mobile and hate it), and find this to be the best. For contest use, we at the University Club, always use it. The way it was set up for contesting is much easier to use and much better thought out than any I have come across.

73

From qrp-request@Think.COM Mon Jun 7 12:42:34 1993
Date: Mon, 7 Jun 1993 12:41:04 -0400 (EDT)
From: Robert Marlan <rsm@world.std.com>
Subject: Re: Keyers

On Mon, 7 Jun 1993, Jeff M. Gold wrote:

> HI,
>
> I agree, my first ham radio kit was the Super keyer using the Idiom
> Press parts kits. The keyer without even the memory is worth the price.
> It has the best self-completing dots and dashes and feel I have ever
> used. I have built at least 4 keyers (avoid the "Cheap Keyer" from the
> Handbook.. the worst.. I use it mobile and hate it), and find this to be
> the best. For contest use, we at the University Club, always use it. The
> way it was set up for contesting is much easier to use and much better
> thought out than any I have come across.
>
> 73
>
>

where can I get the parts kit and skematics???

From qrp-request@Think.COM Mon Jun 7 14:05:39 1993
Subject: Keyers (Superkeyer II)
Date: 07 Jun 93 17:59:17 GMT (Mon)
From: danbl@arcturis.cna.tek.com

The article on the Superkeyer-II appearing
in QST offered source code as well. Does
anyone know if this is still available?

-Daniel Blakley

From qrp-request@Think.COM Tue Jun 1 11:39:30 1993
Date: Tue, 1 Jun 93 10:39:20 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: Kits

Gang,

Jeff (AC4HF) sent me email inquiring about the A&A compared to the
other rigs.

i have built just about everything ever made. i haven't sat down and
done a chart of side-by-side comparison. each rig has it's own set
of positive features and a couple of things that i don't like.

my favorite rig is the OHR Spirit. i've got a new MXM that i'm aligning
today and i'll let you know by thursday how it does.

tell you what, here is the initial parameters that i'll start with.
email anything that you think i should include. these will be used
to make a chart for each rig:

- a. instructions
- b. quality of components
- c. ease of assembly
- d. would rig do for beginner?
- e. test equipment required set up
- f. schematics
- g. cost
- h. available bands
- i. receiver sensitivity
- j. receiver selectivity

- k. transmitter power
- l. qsk ability with and without relay
- m. size and weight
- n. builtin keyer
- o. s-meter
- p. agc and other 'features'
- q. audio power

i'll post this chart to the group as it evolves and get feedback.
then i'll sell it to the rest of the world to pay for all this equipment.
:-) :-) ;-) (joke)

72 es bcnu gl dx es gb de k5fo dit dit

p.s. note loss of high speed on signature. seemed to bother people that
an otherwise sane individual would wanna do that to their mind. ;-)

Chuck Adams, K5FO
CW spoken here....
adams@sgi.com
Southern Education Center
Dallas, TX
(214) 788-4122 (voice)
(214) 788-1376 (fax)

From qrp-request@Think.COM Tue Jun 8 20:01:21 1993
Date: Tue, 08 Jun 1993 10:44:31 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: kits

Well, I finished my Oak Hills Sprint Friday night and have been testing it out. It was a very quick and easy kit to build. I built in a speaker.. not really worth it.. you need headphones for it (Dick says that is the way it is designed). I tried every power supply I own (very well filtered and regulated) and couldn't use a power supply with it (a problem with Direct Conversion Receivers). I finally gave in and use headphones and a 4AH gell cell. The battery hasn't been charged in some time.. but the little rig doesn't seem to eat much.

It took a little getting use to.. my first DC receiver. But I have found that the 1 watt (due to low battery) seems to get out pretty good. If the bands are busy.. forget it... all the information I have read about DC receivers has proven to be correct.. noise and stations are

doubled... still have been able to make contacts as long as the band was decent enough.. My Sprint is on 30 meters, and the bands seem to have pretty bad since the weekend.

OK.. now for more news:

Just got the 624 Kits version of the Gary Breed transceiver that was in the Handbook. It is a parts kit boards. You add your own enclosure and jacks. It sell for \$109. Thought it was going to be a bare bones type deal. The circuit board is real good quality and nicely silk screened. The instructions are step by step (good for a beginner), the schematics are computer generated and all pretty and there is a nice parts overlay. Going to build the receiver tonight, I hope. You build then test the receiver before going onto the transmitter. I like this approach. One thing I didn't like about the Spirit was you got all the way to the end, no power off tests, and then you just power it on.

73

Jeff,AC4HF

From qrp-request@Think.COM Wed Jun 9 09:49:19 1993
Date: Wed, 9 Jun 93 09:49:02 EST
From: jennings@abb.com
Subject: Re: kits

>
> X-sent: from UBSV01.ABB.COM via MAIL-11 (13Apr93-1037); Tue,
> 8 Jun 93 20:07:10 EST
> Received: from nms1.abb.com by UBSV01.ABB.COM via Pony Express SMTP
> with TCP (v8.1.1-dmr001); Tue, 8 Jun 93 20:07:01 EST
> Received: from mail.think.com by nms1.abb.com (4.1/ABB-27MAY93) id
> AA29308; Tue, 8 Jun 93 20:06:58 EDT
> Received: by mail.think.com; Tue, 8 Jun 93 20:01:23 -0400
> Return-Path: <JMG@tntech.edu>
> Received: from Think.COM by mail.think.com; Tue,
> 8 Jun 93 20:01:21 -0400
> Received: from gemini.tntech.edu by Early-Bird.Think.COM; Tue,
> 8 Jun 93 20:01:11 EDT
> Received: from tntech.edu by tntech.edu (PMDF V4.2-11 #3874) id
> <01GZ4SETFJAOK60U1Y@tntech.edu>; Tue, 8 Jun 1993 10:44:31 CDT
> Date: Tue, 08 Jun 1993 10:44:31 -0500 (CDT)
> From: "Jeff M. Gold" <JMG@tntech.edu>
> Subject: kits
> To: qrp@Think.COM
> Message-Id: <01GZ4SETGVJ6K60U1Y@tntech.edu>
> X-Vms-To: IN%"qrp@think.com"

> X-Vms-Cc: JMG
> Mime-Version: 1.0
> Content-Type: TEXT/PLAIN; CHARSET=US-ASCII
> Content-Transfer-Encoding: 7BIT
>
>
>
> OK.. now for more news:
>
> Just got the 624 Kits version of the Gary Breed transceiver that was in
> the Handbook. It is a parts kit boards. You add your own enclosure and
> jacks. It sell for \$109. Thought it was going to be a bare bones type
>
>
>
>
> 73
>
> Jeff,AC4HF
>

Jeff,
What year Handbook was the tranceiver in?

73,

Tom kv2x

--

Thomas J. Jennings	Tel: (716) 273 7071
Development Engineer	Fax: (716) 273 7262
	Internet: jennings@abb.com
ABB Process Automation	
Post Office Box 22685	
Rochester, New York 14692-2685	

From qrp-request@Think.COM Fri Jun 4 11:28:43 1993
Date: Fri, 4 Jun 93 10:28:25 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: KR1S strikes again

Jim,

geez guy, politically motivated revenge is no reason to pick on the guy, in this case, Frank N01E. hey, how many times you get note from some poor guy who tried to work YOU (somebody famous) and you didn't get back to him. kinda like standing out in front of a crowd of 50,000 people at a concert and then after the concert someone comes up and says, "say JimBo, did you see me? last row seat #3.". :-) ;-)

ok, i want you listening for ME next week. be there be square. :-)

all in fun guys. i remember the first time i worked KH6IJ during a SS. me running my lil ole HW-16 (hey guys, this was when 25 watts was qrp!) with a dipole on 40 meters. talked to him several times later. my CW hero of all time. they guy is a legend. when he goes SK you can be sure that i'll pause a moment and think about the big picture.

ok, back to your regular scheduled programming.

BTW i just might see Lew McCoy if he comes all the way from NM. saw him years ago at the Midland TX meet.

all these famous people everywhere and a good share in this group.

did you guys and girls and know. this mailing group may start to exceed the active membership list of QRP ARCI? in a few years maybe. it could happen. there are over 8000 numbers given out by ARCI. but only 1400 or so are active members. mostly due to political reasons and disappointment in the running of same. we need to work on it. how someone running for office. NOT ME. i got a life. ;-) well maybe.....

keep the faith and i'm off to hamcom. i will be back, whether you want me or not. ;-)

Jim, hope it's ok to pick on you. you sound like a nice guy with a sense of humor, even if you are north of the red river. ;-)

Randy AA2U (another famous critter) and the gang. what DX call today, if calling CQ, would cause the biggest pileup? TRIVIA QUESTION #1.

ciao,

Chuck Adams, K5F0
CW spoken here....70+ wpm
adams@sgi.com
Southern Education Center
Dallas, TX
(214) 788-4122 (voice)

(214) 788-1376 (fax)

From qrp-request@Think.COM Fri Jun 4 13:08:12 1993
Date: Fri, 04 Jun 93 17:02:20 GMT
From: jkearman@arrl.org (Jim Kearman)
Subject: Re: KR1S strikes again

>
>Jim,
>
>geez guy, politically motivated revenge is no reason to pick on the guy,
>in this case, Frank N01E. hey, how many times you get note from some
>poor guy who tried to work YOU (somebody famous) and you didn't get back
>to him. kinda like standing out in front of a crowd of 50,000 people
>at a concert and then after the concert someone comes up and says, "say
>JimBo, did you see me? last row seat #3.". :-) ;-)
>

I didn't say he had to work me. I said my call had to be
in his log. Of course, a QSO is worth extra points....
I have been warned to be impartial. I am. I'll take a
bribe from anyone.

72

Jim

--
jkearman@arrl.org

From qrp-request@Think.COM Fri Jun 4 14:17:41 1993
Date: Fri, 4 Jun 93 14:15:01 EDT
From: Frank.Milos@East.Sun.COM (Frank Milos - Sun USOPS CSU Manufacturing
Engineering)
Subject: Re: KR1S strikes again

Sorry about not including your call, Jim. I thought e-mail
counted for some points. I have always entered the calls of all
I work and not the ones I wish I worked. Otherwise, I'd fill up
too many logs.

Oh well, maybe next time.

And, if I have the option (which I don't) of appending to my log,
here you go...

```
:DATE      TIME CALL RST-S      RST-R      NE NR      NAME
:
:05/21      0133 WA1GUV      459  549  126  TOM
:      0137 VE2DRB      559  559  94   BOB
:      0150 WA1JXR      569  569  12   GREG
:
:05/28      0118 VE2DRB      449  449  94   BOB
:      0125 W1FMR      569  579  1    JIM
:      0129 NG1G 579  579  2    JACK
:      0133 KN1H 579  569  3    JOHN
*****
*05/28      01xx KR1S 000  000  ???  JIM   *
*****
```

Have a good weekend, gang!

72

Frank, N01E

From qrp-request@Think.COM Wed Jun 16 13:34:06 1993
From: mvjif@mvubr.att.com
Date: Wed, 16 Jun 93 13:31 EDT
Subject: L C Measuring

Gang,
A while ago, we exchanged methods of measuring Inductors
and capacitors.
Wayne, N6KR and others suggested an LC oscillator and
graph-plot method.

The winter issue of Communications Quarterly has a simple
3 transistor circuit to do just this, and includes about
6 pages of exact details on construction and operation.
An unbelievably thorough article !

I built it and it works great.

I wrote a simplistic program in Basic to compute the
values, substituted a toroid core and wire that I had
on hand, and use a Ramsey counter (0 - 600 Mhz) found

3 weeks ago at a yard sale (unbelievable ! found it
with a tiny battery powered oscilloscope)
I am thouroughly satisfied with the project.

72, Jim - W1FMR mvjff@mvubr.att.com

From qrp-request@Think.COM Wed Jun 16 15:55:01 1993
Date: Wed, 16 Jun 93 15:53:15 -0400
From: lakeith@wrdis01.robins.af.mil (CONTRACTOR Larry Keith;WR-ALC/653 CCSG/SCDD)
Subject: Re: L C Measuring

In your message of 16 Jun 1993 at 1455 EDT, you write:

>
> 3 weeks ago at a yard sale (unbelievable ! found it
> with a tiny battery powered oscilloscope)

I must be going to the wrong garage sales!!!!

Larry

From qrp-request@Think.COM Tue Jun 1 14:54:44 1993
From: mvjff@mvubr.att.com
Date: Tue, 1 Jun 93 14:46 EDT
Subject: LC

Gang,

L, C, Measurements:

There is a very thorough article, compl with basic program,
for a simple Inductance/Capacitance measuring circuit.
In April - Communications Quarterly.
It uses the basic principles discussed on this network.
I will report how it works when I build it.

The Half Square: A 2 element Bobtail Curtain.

I have used one with much success. It was not fed at the
top, but at the bottom of 1 element.

1/2 wave

```

1/4 wv. |           | 1/4wave
          | ^ .....Matching circuit to rig here.
          | ##### < Ground screen.

```

It was a non-resonant antenna, tuned with a parallel LC network connected between 1 element of the antenna, and the ground screen (a 3X5' piece of hardware cloth or screen). Connection to the rig was via a 2 turn link or tapped connection made on the coil (L).

My antenna was about 50' high, with one element ending just on the top of a porch roof, where the ground screen was laying. It worked terrific DX, but for contacts closer than 1500 miles, it was only fair.

I brought the element in through a window, and could tune the LC network for all bands. It was an amazing performer on 20 - 10m also.

The 2 element design is derived from the 3 element Bobtail Curtain, and appears in the ARRL Antenna handbook, and Low Band DXing (exact title ?) Many 80m DXers here and over seas use the (80m) 3 element version as their secret weapon, with tremendous success.

The 2 element, top fed version sold by Antennas West, was first built by W1XU and publ in 73 mag. in 1986.

72, Jim - W1FMR mvjfm@mvubr.att.com

From qrp-request@Think.COM Fri Jun 11 09:38:13 1993
 Date: Fri, 11 Jun 1993 07:37:14 EDT
 From: "Fred Cady ieeefc@msu.oscs.montana.edu" <fred_c@ece.ee.montana.edu>
 Subject: Making simple paddles

I made a simple paddle that worked great when my General class built keyer kits. I'll try to describe it.

Use a wood base, 2 right angle brackets (about 1"x1") from the hardware store and two pieces of single sided pc board material about 1" by 6". The angle brackets attach one end of the pc board "paddles" to the wood base about 1" apart. Attach the dit and dah wires here. At the other end of the "paddles", in the middle, put a brass screw with the ground wire. You can adjust

how far apart the paddles are for the amount of tension. Worked pretty good (not a bencher!) but its hard to beat the price.

Let me know if any of you try this. Was thinking about sending it to QST or 73.

73 Fred, KE7X

From qrp-request@Think.COM Thu Jun 10 11:16:29 1993
Date: Thu, 10 Jun 1993 11:16:15 +0500
From: fkf1@cornell.edu (F. Kevin Feeney)
Subject: making simple paddles - looking for ideas

Hi,

Been watching the discussions of paddles with interest. I'm a casual cw op, and like to do it in the field with qrp. I've dragged (and bunged up) my bencher paddle, but would like to come up with something cheap, simple, and easy to rebuild if I lose it or break it. Thinking about something based on some micro-switches and stiff guitar picks. Or maybe an electronic method like the ones that use your fingers on pc board pads to complete a high impeadance circuit. I've already got a keyer built into the rig - just looking for a simple way to send the contact closures to it.

Anybody tried microswitches or the "electronic finger" method?

Thanks

Kevin - WB2EMS (fkf1@cornell.edu)

From qrp-request@Think.COM Thu Jun 3 17:59:31 1993
Date: Thu, 3 Jun 93 16:59:20 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: Re: MXM Xcvr

gang,

i got mail from Dan, KB6MHN, about my last post on the xcvr. sorry to leave out a bunch of details.

1. i don't think that i will be able to get rid of all 500 of the boxes. i'm asking \$8 at the show. probably \$9 to include shipping, so if anyone on the net wants me to save some, let me know within the next few days. the cover is u shaped and 3 holes on a side. kinda like

the Bud boxes. no overhang on the cover like mfj. sorry i don't have picture.... ;-)

2. the MC3340 is the correct part number. it's a variable attenuator.

the MXM xcvr is Bruce, WA6IVC, latest design. it's a dual conversion receiver based on his SuperRX. 4MHz first IF and 455 KHz for the second. transmitter is simple 1.5 to 2.0 Watt using 2SC799 for the PA. the SuperRX was written up in Nov 1991 Radio Fun. front end has a Cohn 4-pole crystal filter with 500 cycle bandwidth. very good selectivity and great sensitivity. i'll have a report on it as soon as i get back from MD in two weeks.

i'll be on the net during the trip and i'll probably take rig with me. hw-9 will be the on the air rig. i haven't yet figured out how i'm gonna get all the stuff i need to work on to the plane and then to the hotel. ;-) maybe take a 747 cargo plane!!!!

back to the MXM kit. this kit can be built without a scope, etc., but i recommend you have one, just to get tuning, bug checking, etc. outta the way easily. i should see the new set of assembly instructions tomorrow and i've recommended a bunch of stuff. maybe with general coverage rcvr, multimeter, one could do ok. i have Phillips PM-3262 (i think that's the right number) scope, heath freq counter and that helps a lot.

the SuperRX is in the set of stuff that i'm getting together. got Bruce's permission this last week. the new xcvr will not be in the net schematics. sorry guys. the cost of the rig will be \$99.50 + S&H, no case, no misc hardware (jacks, etc.). a REAL-HACKERS kit.

not an advertisement, just another satisfied customer. the kit is not advertised yet, but will be shown at Hamcom this weekend. probably my prototype, since it's the only one in the world that is painted, etc.

speaking of, anyone know of a photocopiable clear plastic with gummed backing. this would be neat stuff for hobbists. i have program to create panels, dial markings etc., but don't have silk screen capabilities (ooops spelling error) to get the final layout to the paint.

hope this helps..... fer nw de k5fo dit dit

Chuck Adams, K5FO
CW spoken here....70+ wpm
adams@sgi.com

Southern Education Center
Dallas, TX
(214) 788-4122 (voice)
(214) 788-1376 (fax)

From qrp-request@Think.COM Thu Jun 3 11:52:35 1993
Date: Thu, 03 Jun 93 15:40:19 GMT
From: jkearman@arrl.org (Jim Kearman)
Subject: NE QRP 79ers

No May Daze logs have been received to date.

Logs go to:

Jim Kearman
83 Main St #13C
Newington, CT 06111-1330

Help preserve my low profile: please don't put my
call on the envelope. Thanks.

Jim

--

Looking for historical information on the GRC-109 radio set.

jkearman@arrl.org

From qrp-request@Think.COM Thu Jun 17 15:26:54 1993
Date: Thu, 17 Jun 93 11:22:12 PST
From: Rob_Ontiveros_at_Notes-Gate@sceng.UB.com
Subject: Need Kit Info

Hi All,

I would like to build a qrp cw xcvr. My question is What kit would I have the best chance of being successful the first time around? I am considering the lectrokit spider and OHR Sprint. I am an electronic technician and not intimidated by electronic circuitry but I don't want to turn this into a six month project. Something I could solder together and align quickly would fit the bill nicely. I invite comments on the above two kits or any others that would be applicable. Thank You

72 de KC6ZTT
Rob

From qrp-request@Think.COM Mon May 31 10:37:02 1993
Date: Mon, 31 May 1993 09:37:17 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: Oak Hills Spirit Review

Here is my review (totally non-technical) of the
Oak Hills Research Spirit:

Description:

Single Band kit for 80, 40,30,20,or 15
Curtis Chip keyer (8044ABM)
Superhet receiver with diode ring mixer and RF pre-amp
4 pole crystal ladder filter followed by an on board audio filter
Switchable HP AGC circuit with manual gain control
2 watts audio output
VFO with 8:1 vernier drive
Sinewave sidetone oscillator w/frequency and level controls
QSK
5 Watts output
12vDC
4"X6 1/4"X6 7/8" weighs 47 oz.
100% complete kit with pre-wound coils, PC boards are quality
double-sided and plated through and screened.

=====

OK, that is what it says in the catalogue. I opened the box and checked things out. There is a stack of stapled sheets that are the instructions. There are large part overlays, a chart showing you how to read the resistor codes, a detailed and well thought out parts list. and the schematics.

This kit isn't the Heath step by step approach. The first page tells you some general things about assembling the kit and soldering and be careful type comments. The first step is to find all the parts and make sure they have been sent to you. Next you find the Receiver board and then it tells you to put in all the resistors followed by the capacitors. The next steps do go through what you need to do. As the process itself would get more unclear the directions get clearer.

After building a number of kits I find I like this approach best. I first check off all the parts and label them on a piece of paper and stick the wires through. This gives me a chance to make sure all the

parts have been included, familiarizes me with the parts and gives me a double check about putting the correct parts in the right holes on the board. I check them once while I am going through the parts check off and then again before I place them on the board. I also find that checking off the parts is my least favorite part, and when I do it this way, when I start to build I don't have to go hunting for parts. Since I have started to use this approach, my projects seem to work correctly the first time (except for putting in an audio chip backwards and smoking it.. well no one is perfect and I was able to get a replacement for \$2.00 at Radio Shack). I found the way the parts were listed on the instructions made it very easy to identify them and check them off. I found almost all steps in the final construction to be very clear and unambiguous. I do a lot of documentation at my job. I find that most instruction sets have places where the author meant one thing and the words indicate something else.

OK, now for the kit. I think there were over 170 resistors in this kit. It took me quite some time and energy to sort out the parts. I found ALL the parts to be of top quality. The enclosure is excellent. I didn't see any hint of cutting corners in any piece that was included with the kit. After building kits from about all kit manufacturers, the quality of the parts in this were the best. I have found that Ramsey uses some quality parts and some real garbage..I think Ramsey's enclosures are real ripoffs.

The board was the single item that impressed me the most. Like it says it is high quality plated through. You heat the joint and the board sucks up the solder. The result is that you will be proud to show either side of this board to anyone.. my wife comments on how her needlework is beautiful on the front side, but she won't show the back to anyone, well many of my projects are like that. With this one, I felt like displaying the board in an art show.. what a proud pop I am. The silk screening on the receiver board was ok, but certainly not great.. I found I put one piece in the wrong place because I couldn't read the part #. Well this really isn't a problem, and it was my fault. There is a clear large part overlay that makes it a breeze to build.

The receiver board is jam packed with parts.. but the back of the board is layed out so that if you use a fine tipped soldering iron you really shouldn't have any problems with solder bridges. The transmitter board was a lot less dense.

The Keyer board isn't plated through and not near in quality to the other 2 boards.. be careful with this one.. I found it not nearly as much fun to solder to as the other boards.

Once I got the parts checked off and labeled, I found it very easy to assemble. The first part of the instructions that tell you to put on

about 200 parts are a mere 2-3 steps. Then when you put in the rest of the parts the instructions (like assembling the chassis, the final wiring and alignment) are detailed and clear. There are no checks as to whether you have built it right.. like Heath's resistance checks, when you are done, you power up and pray.

I was real careful with this kit, but got a little too excited at the final assembly and had put one teeny weeny audio chip in backwards.. boy did I feel dumb.. and when I powered up.. the smoke came out.. it failed the smoke test (or is it it passed the smoke test, but failed to work). It was very easy to spot the mistake, and since the chip was on a socket, it was a breeze to correct. I checked the resistors and other parts that fed it, and no problem at all.

The final alignment suggests a frequency counter. I can't ever get the frequency counter in my MFJ antenna analyzer to read such low levels, so I use my 757GX as my alignment tool. You just need to set a coil and a capacitor to set the full 100kc bandwidth for the VFO. I take a piece of copper wire, stick it in the antenna jack of my 757 and hold the loose end over the oscillator circuit. It works just fine. The rest of the alignment had some aspects I have never encountered before. You tune the pitch of your TX out signal and the sidetone pitch (I once again used the 757, put both rigs on dummy load, transmitted and set the Spirit for the same note as the 757. I figured the Yaesu people knew what they were doing and had the proper equipment when they did it). The TX alignment I used my Oak Hills QRP wattmeter and you simply adjust a variable resistor for power level and then 2 coils for maximum output. I spoke with Dick at Oak Hills who suggest you tune it for the full 5 watts out to get the best quality TX signal. Over the weekend I took the case off a few times and tweaked various things. A note about the keyer weighting adjustment. I started at the suggested middle position. The keyer was acting really funky... couldn't really set it right. I turned the weighting adjustment and it is now perfect..one of the better keyers I have used..guess that is why a lot of people use Curtis chips. One of the adjustments that you peak .. be careful that you are on the right sideband.. I didn't have much audio level to my speaker, when I went and re-read the instructions, it had cautioned me about it.. went back and re-adjusted and everything was fine.

Ok, now for the real stuff.... how did it work. Well let me tell you that the weekend of the CQ WPX CW contest is quite some time to test out a new QRP rig. The rig puts out a full 5 watts (I turned mine back from a little over 6 watts.. may have to have a friend put the oscilloscope on it to check the signal out). The keyer works real smooth.. full break in.. but has a minor little click in it.. don't think the click is going over the air.. I have listened on another receiver. The receiver at first deceived me and I will need to do some more testing. The bands were really crowded in my QTH. The big guns were using big ammo. The rig

doesn't have a narrow and wide CW filter switch. This worried me. During contests it is real nice to have a narrow filter available. I tuned around and noticed that when the receiver got a signal, you really only heard that one signal. At first I thought that this was caused by the receiver being too insensitive. After spending the entire weekend of the contest testing the rig out, I found that if I could hear them on the other rig, I could hear them on the Spirit without other station interference. I am not as of yet a person who possesses enough electronics knowledge to go in and analyze the circuit and do comparisons. I can do extensive "real-life" tests.. which from my experience sometimes had more truth than theory.

I worked over 125 stations with my 5 watts and Gap vertical during the contest. I worked to Russian stations, a S50S I think it was, an Italian, a French, Alaska, a bunch of islands, and from the West Coast to the East Coast and some other places in between. After I got the hang of it, I got many returns on my first call.. not bad for 5 watts and a vertical.. used the built in keyer, not my contest keyer and my Bencher paddles.

Other impressions: I would have left out the AGC on and off, the RF control and made the keyer an option. I use a straight key most of the time. The rig is BIG and HEAVY. A little smaller than my HW9, but not much smaller. The chassis is solid... lots of metal. I think Oak Hills can keep the best parts of this kit, get rid of the extras, and maybe add a narrow filter and a S meter. I think they are coming out with something like this in the near future. For a station QRP rig, it would be pretty hard to beat this though.. and for portable operation it would also be excellent, a little too big for backpacking.

Jeff, AC4HF

From qrp-request@Think.COM Thu Jun 10 09:25:01 1993
Date: Thu, 10 Jun 1993 08:25:30 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: Oak Hills Sprint

From qrp-request@Think.COM Thu Jun 10 09:26:09 1993
Date: Thu, 10 Jun 1993 08:26:36 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: Oak Hills Sprint

Sorry about the last message.. I am trying a new editor and the key sequence is different.

I will give this another try:

Oak Hills Sprint:

Oak Hills Research
20879 Madison St.
Big Rapids, MI 49307
1-800-842-3748 (Orders)

Sprint is W7EL Optimized QRP CW Transceiver
Single band for 80,40,30
High performance DC receiver
Diode ring mixer
VFO tuning 8:1 vernier ..covers any 100KHz of band
RIT, center dtent
Peaked audio filter
Sidetone oscillator
Smooth QSK
1.5 watts
all coils prewound
12vdc
100% complete kit
\$109.95

OK, that's what the catalogue says.. I am in no way
contacted with the company, other then sending them a great
deal of my pay check.

The boards are plated thru.. the best quality I have
soldered.. I am currently building a kit with good boards that aren't
plated thru, and boy do I notice the difference. Apply heat
and solder and the board sucks up the solder..looks great
and makes a real good connection.

The directions aren't step by step. More like check the
parts off and put them in. The board is silk screened and
there is a very nice large parts overlay, so putting the
parts in is a breeze. When you have to do more than just put
resistors or capacitors in, the directions become more
detailed and are very clear. With some help a beginner
should be able to do this fairly easily. I like to put the
lowest lying parts in first.. not the resistors and then
caps as directions suggest.. this way the IC sockets sit
flatter to the board.

The cabinet is very nice and all plugs and jacks are
included. The rig is VERY small. It draws very little
current. I have been trying to drain a 12v 4ah gel cell

before vacation. I leave the receiver on from when I get home till I go to sleep and have done a lot of operating with it.. the battery didn't have a real good charge to start with.. the rig is still taken a lickin and it keeps on tickin.

The receiver works nicely. This is my first Direct Conversion Receiver.. quite and experience. I have read all the down sides to them like.. you hear twice as much noise, you must tune to the correct sideband, and it is more likely to get inteference from AM stations.. all this is true.

I put the rig on the air last weekend and it took a few minutes to learn how to tune quickly.. the directions clearly tell you the procedure..simply start at the "0" end of the scale and when you get the signal to the "0" side it is the correct side. While tuning around I usually tune past the signal till it is right in the middle of the wave.. the signal disappears.. then make sure by tuning up a little past and then down again to the correct side. It only takes a few seconds and it really seems to be working. I have been getting most people the first shot on about 1 watt.

This last week the 30 meter band around here has been real bad. Lots of noise sounding like storms inside the rig. I have still been able to get thru the noise and make contacts. I have had a problem with signals coming over my QSO in the middle so I couldn't hear the other person.. but they could hear me. They were on a superhet.. and only hearing one side of the wave..

I have enjoyed the rig.. it will make a nice backpacking rig.. can use my small gell cell and going to make a new top piece and radials for my portable PVC vertical for the 30 meter band this weekend and take it with me to a conference.

I have tested it against a couple of Superhets.. I still like a superhet better.. find them easier to operate and easier to carry on a longer QSO without inteference that really isn't even on your freq. This doesn't mean I don't like the Sprint... I was on it this morning and the bands were behaving a little better and I had a real nice and clear QSO with no problem.. always surprised how well the 1 watt is getting out with the way the 30 meter band has been.

Jeff, AC4HF

From qrp-request@Think.COM Fri Jun 11 14:06:32 1993
Date: Fri, 11 Jun 1993 13:07:03 -0500 (CDT)
From: "Jeff M. Gold" <JMG@tntech.edu>
Subject: Oak Hills Sprint

I finished my 30m Sprint last Friday.. didn't bother me about the plugs.. when you do the final wiring. where it says to cut the 8" coax.. make it the whole length he gives you.. or you won't have enough to route it all the way around the outside.

My only complaints are it is a DC receiver.. boy are they a different animal.. have been using mine with a battery that was low on charge.. only put out about 1.1 watts.. just changed the battery today and putting out about 1.8. The low watts really gets thru.. but a real bear with double the noise on the receiver.. one of my biggest complaints is that it is way too sensitive to power supply hum.. I tried my best filtered supply .. no problem with any other rig (have 6 hooked up currently).. had to hook it to battery.. which is the way I will use it most of the time anyway.

The rig uses almost no current.. go for a long time on a 4ah battery..

72

Jeff,AC4HF

From qrp-request@Think.COM Fri Jun 11 13:33:36 1993
Date: Fri, 11 Jun 1993 13:33:17 -0400
From: Scott Cranston <cranston@zk3.dec.com>
Subject: Re: Oak Hills Sprint

I'm building a 40m Sprint right now... just completed the OHR wattmeter and switched cap audio filter. I have two complaints about the Sprint:

- It uses 1/4 inch phone jacks. Such a nice small radio, seems a shame. I have the same complaint about the SCAF too.

I'm using 1/8" mini jacks to build with. I used 1/2 inch 'fender washers' drilled out to fit the 1/8" jack and painted flat black to mount them. You need to file the fender washers washers to about half or less of their original thickness. I put them vertically in a vise and use a flat file... then re-clamp it in the vise and file the end that was originally

in the vise. I hang them from an un-bent paper clip for spray painting.

- To make the 1/4' jack problem worse, its overtop the volume control.

Yea, you could use right angle 1/4" plugs, but thats a worse bandaid than the fender washers and 1/8" jacks/plugs, IMHO.

Otherwise, the wattmeter and SCAF are great! I fully expect the Sprint to be the same.

Scott,
KB1NW

From qrp-request@Think.COM Fri Jun 11 22:24:43 1993
From: Kevin Purcell (Rho) <a-kevinp@microsoft.com>
Date: Fri, 11 Jun 93 19:23:59 PDT
Subject: RE: Oak Hills Sprint

"Jeff M. Gold" <netmail!JMG@tntech.edu> says of the DC RX in the Sprint

[deleted] one of my biggest complaints is that it is way too sensitive to power supply hum.. I tried my best filterd supply .. no problem with any other rig (have 6 hooked up currently).. had to hook it to battery.. which is the way I will use it most of the time anyway.

I say:

This problem is usually due to radiation from the L0 which is picked up by the power supply, nonlinearly mixed in the rectifier diodes and then reradiated (or sent down the DC power cable) to the rig. The rig picks up the L0 + and - 60Hz. On detection you hear 60Hz buzz.

To get around the problem:

minimize ripple generate hum (use a LM317 regulator or similar to drop this hum by 80dB!)

bypass the rectifier diodes at RF with 0.01uF capacitors.

put a common mode choke (wind the power cable through a -43 core) on the DC power cable to the rig.

physically seperate the PSU and rig

use a balanced antenna (not an end-fed wire) at some distance from the PSU.

Also beware confusing all this 60Hz for TV line buzz (which I have living 1/2 mile from a bunch of TV TXes). Sounds the same but is more difficult to cope with :-)

Kevin Purcell N7WIM / G8UDP

a-kevinp@microsoft.com

"We conjure the spirits of the computer with our spells"

From qrp-request@Think.COM Fri Jun 11 08:19:03 1993

Date: Fri, 11 Jun 93 08:18:50 EST

From: jennings@abb.com

Subject: On the air!

Hello QRPers,

I finally had my rig fixed yesterday! And I called CQ a few times on 3575 khz last night at 10PM but did not hear any one. Noise was terrible!

My station: Astro (swawn) 102bx, running about 10 watts to a long wire through a dentron tuner.

Did anybody hear me?

Tom Jennings KV2X

jennings@abb.com

From qrp-request@Think.COM Fri Jun 11 08:41:57 1993

Date: Fri, 11 Jun 93 08:41:45 EST

From: jennings@abb.com

Subject: On the air!

Hello QRPers,

I forgot to mention that I did have two qsos Pensicola, Fl (20m) and Aurora, Co. (15m) from Rochester, NY both with about 10 watts.

Also I saw mentioned some where that there are qrp frequencies. Could some one let me know what they are?

Thanks and 73

Tom Jennings KV2X

jennings@abb.com

From qrp-request@Think.COM Tue Jun 8 14:24:38 1993
From: jpo@acd4.acd.com (Jim Osburn)
Subject: Oops! Found My HW-8 Problem
Date: Tue, 8 Jun 93 13:01:08 EST

I found the problem that was causing AM reception on my HW-8.
The DC power connection was not good.
I was using clip leads. When I eliminated the clip leads and made a
real connection, the problem went away.
I want to thank everyone who had a solution for my problem.
This mailing list is a good resource.

73,

Jim, WD9EYB

From qrp-request@Think.COM Thu Jun 17 15:02:39 1993
Date: Thu, 17 Jun 93 18:36:02 GMT
From: jkearman@arrl.org (Jim Kearman)
Subject: Poetic Toroids

burdick@interval.com (Wayne Burdick) writes:

>
>For those who "grump" about toroid winding:

>
> That donut-shape, though daunting,
> Is a wondrous thing to wind,
> And also is self-shielding,
> Thus yielding peace of mind.

>
>73,

>Wayne, N6KR

>

>Wayne Burdick	Interval Research Corp.
>wayne@interval.com	1801-C Page Mill Road
>(415) 354-0928	Palo Alto, CA 94304

>

>

>

Sheesh, back in CA <6 mos and he's flipped already! ;}

From qrp-request@Think.COM Tue Jun 1 10:26:16 1993
Date: Fri, 28 May 93 16:23:00 -0500
From: adams@chuck.dallas.sgi.com (Charles Adams)
Subject: QRP at Hamcom

gang,

yes, there will be qrp activities at hamcom.

Rev. George Dobbs from the UK will be here and give a talk on saturday and sunday. the same talk. saturday talk will be from 1 to 3 pm and the sunday talk will be 10 to 12 am.

QRP ARCI will have a booth and the local qrp club will have a couple of tables set up for show and tell and swap.

i'll be at the booth some, but mostly at the swap table and am scheduled to operate a rig at the MXM table in the tent.

i would think that Tejas RF Tech. will be here also. OHR will not, but i will have my rigs at the table along with the A&A. i can't bring everything..... ;-)

the local club will have a hospitality suite at one of the hotels in arlington and the place will be announced at the booth. i don't know in advance.

saturday afternoon, i'll be running the cw contest. the first annual test at Hamcom. hopefully i won't be in charge of this thing every year. i wound up with it by a move made to austin tx by the guy who started out with me as a team.

if anything else comes to mind, i'll let you know.

i'll try to have the schematics there and on tuesday of next week i'll post a status report. i haven't seen the mail yesterday or today to see what new arrivals i have.

you guys and girls have a nice weekend. hope to be on the air, but hey, it's spring time here and the one acre lot is really growing. i made a mistake and fertilized. helps the conductivity as well as makes the organic life at the surface grow..... ;-)

72 from texas de k5fo dit dit

Chuck Adams, K5FO @ 70+ wpm cw
adams@sgi.com

From qrp-request@Think.COM Tue Jun 1 16:30:35 1993

Date: Tue, 1 Jun 1993 16:30:22 +0500
From: fkf1@cornell.edu (F. Kevin Feeney)
Subject: qrp on the birds

Vikki Welch writes...

>Looking forward to hearing more on digital modes an QRP. Also QRP on
>the satellites (done some - not real successful with the cushcraft
>AOP-1 antennas (they stink)). Still like to play on RS-10, if anyone
>is interested, we can see what I can do from here, although I have
>*very* limited antennas (but we are still *much* luckier than most
>apartment dwellers :).

Vikki, I've tried some qrp on A013 with pretty good results. I've heard myself back with only a watt or two up on cw. I've heard at least one phone station running a claimed watt that was perfectly copyable. (good squint angles that night) I often run barefoot (10watts, 736 throttled back to not cook the D1010) and do pretty well and can hear myself with the power turned down from 10 watts.

With a simple, linear, homebrewed quagi and an ARR preamp I've copied Z8 level on the ZR0 test. Andy MacAllister said at the Z8 point they were running something like 185 mw to the uplink antenna! Some people have copied Z9, 3db less input than that. I heard it but couldn't copy it.

Uplink wise, I've tried my 440 HT to the helix and heard myself back plainly at 5 watts and usably at 1 watt. (PTT for CW, FM is frowned on) My helix is about equivalent to a KLM 40cx as far as gain, appx 14 dbi (but about 10db cheaper!) The HT worked well except for the cw note. The synthesizer lock was an issue when keying the PTT, and also the synth noise was a problem. But with a crystal controlled 440 ht (with vxo added for a little tuning) and 2-10 watts out you could do cw fine. I don't know if any of the current synthesized radios are quiet enough to put out a decent cw note. (even if you left it keyed continuously at say 250 mw and fed it to a 6-10db amp and keyed that.) I did try putting a shorted plug into the mic jack to keep audio from FMing the carrier. Not entirely sure that killed all the audio - have to do some experiments when I have the time. Would be really nice if the ht had direct coupled dc input to the fm - you could apply a pot and a voltage and bend the frequency +/- 5kc for tuning! Maybe if we go inside a little...

I have heard the AOP-1 antennas were less than optimal. I started with a 14 turn homebrew helix (radial feed. I love it. Cheap and rugged and lots of gain from 420-450. I use it for repeaters, ATV, and satellites. One size fits all!) and the aforementioned 5 element quagi. Worked a lot of mode B (SSB and CW) with 25 watts and a fair bit of mode J on CW. Moved to a KLM 14C for the two meter side which gave me better results on mode J uplink, but didn't seem to improve the sensitivity on the receive side.

For field day we usually run a quagi on each band, 8 elements on the 440 side and 5 on the 2 meter side and work 40-50 stations.

I'm thinking about building a pair of co-located antennas on the same boom at right angles, a 5 element 2 meter quagi with a 8 element 440 quagi mounted forward of the 2 meter loops. Put a preamp, downconverter and 10 meter DC receiver together for the 2 meter RX. (I've got everything but the Dc receiver) Use an HT I have on hand for uplink on CW initially, followed by a 6 db or so power amp with keying to stabilize the note. (goal is to have 10 watts appx at the antenna loop - equivalent to 20 watts through a feedline but the transmitter will be right on the antenna boom!) That should give you a mode B cw station that could fit in the canoe. :-) I've already done field day twice with armstrong rotation and protractor and string elevation so I know that part works. Now all I need is the time to build it and play. I think if I ever get it running I'll call it The Rail. (then for real excitment, you put a balanced modulator in the transmit chain and run DSB)

Dontcha love to blue sky some fun ideas?

73 de Kevin, WB2EMS (fkf1@cornell.edu)

From qrp-request@Think.COM Fri Jun 4 14:28:44 1993
Date: Fri, 4 Jun 1993 14:28:29 +0500
From: fkf1@cornell.edu (F. Kevin Feeney)
Subject: QRP on the birds

Hi Vikki,

Glad my blatherings were encouraging. Here's some info for you.

A013 is an inverting transponder. The frequency profile runs like this...

Uplink	Downlink	
435.425	145.975	top of passband
435.505	145.895	mid passband
435.575	145.825	bottom of passband

The recommended EIRP was .5-1.0Kw to be heard, but experience has shown that that puts up a fairly stiff signal. If I run 100 watts to a 14 dbi antenna, I can gain compress the satellite transponder at good squint angles on voice peaks or CW.

CW and digital runs mostly from the bottom up to about 880 or so. Voice

above that. I think the slowscan people are hanging out on 960. Usually a semi-dxer group on 890 and Rex and crew on 940.

Oh the beacon is 812 and runs 40 baud ascii stuff interspersed with 10 wpm cw and 45 baud rtty.

Squint angles - Oscars 13 and 10 have gain antennas with a certain beamwidth that are oriented off the bottom of the satellite. The Mode S (2.4 Ghz) and Mode L (1.2 Ghz) antennas have the highest gain, and narrowest beamwidth. Mode B is probably the broadest, with a good footprint of about 20 degrees beamwidth. The squint angle is a combination of the angle the satellite is making with the earth at the moment, and your offset from the center of that footprint. Ummm, how to explain this...

Ok, A013 has an elliptical orbit with an apogee of 36000 Km and a perigee of about 1200 Km. Divide the orbit into 256 parts, starting at 0 at perigee. Apogee is 128, and at 255 you're back next to where you start.

The satellites attitude would ideally be a Blon/Blat of 180/0 which would point the antennas at the center of the earth at apogee (directly at the subsattellite point) and would be off a little on rise and fall. In practice they often tilt the satellite so that the antenna is much better during the latter part of the orbit to get the required sun on the solar cells. That's usually a winter time thing.

(If you have instant track, you can go into the orbital profile mode and see this all really well. Much better than I am explaining it)

Anyway, what it means is that even if the satellite is right overhead, it might be pointing at england and you might be out of the prime 20 degree beamwidth footprint. Mostly that means less gain, but it can also mean reversed polarization (LHCP instead of RHCP as in the main lobe). If you are using linear antennas, by about 30 degrees of squint you can hear the spin modulation. By 40-50 degree's it's pretty unusable. (with linear antennas)

Oh yeah, they also schedule the prime pointing time for those higher gain modes like S and L (though L is broken at this point - don't know if it's permanent or not) so mode B always takes a back seat, but we still get some good time and its usable for hours at a time.

Typically I find about 3-4 hours of the pass in the summer, when the antennas point pretty much straight down, that you can use it with little antenna pointing and linear antennas. (you lose 3db by not being CP, so you build your simple linear antenna 3db longer). Lots/most of the european stations use linear antennas on it - CP seems to be more of an American thing. I've used both, they both work, CP is nice if you can manage it but

not a necessity unless you want to use the bad squint angles.

Mode B is usually scheduled for about 9.5 hours of the 11 hour cycle, through perigee (where for about 40 MA units (of the 256) they switch to omni antennas for broadest coverage since the losses are lower. Modes J, L and S are scheduled through the best pointing angles and usually take about 1.5 hours. They move the schedule around some.

Now to make a liar out of me, I'll copy in the last schedule as I got it.

>AO-13: ATTITUDE CHANGE

>L QST *** AO-13 TRANSPONDER SCHEDULE *** 1993 May 10 - May 31

>Mode-B : MA 0 to MA 130 ! Omnis MA 250 - MA 60

>Mode-BS : MA 130 to MA 180 !<- S transponder; B trsp. is ON

>Mode-S : MA 180 to MA 190 !<- S transponder; B trsp. is OFF

>Mode-LS : MA 190 to MA 195 !<- S beacon + L transponder

>Mode-JL : MA 195 to MA 210 ! Blon/Blat 210/0

>Mode-B : MA 210 to MA 256 ! Move to attitude 120/0, May 31

>Please don't uplink to Mode-B during MA 180-190. Doing so will interfere
>with Mode-S operations. Mode-S will be ON for nearly 3 hours, from MA 130
>to MA 195. New Mode-S stations appear daily. During MA 130-180, Mode-S
>stations will have to endure the coupling from the Mode-B users operating
>between the downlink passband between 145.880-145.920 MHz. Either work
>between them, use them as test signals, or go to cross-band operations.

I see that they've expanded mode S to 3 hours vs the 1.5 hour - I told you they moved it around. :-)

From what you said of your station, you should have a good shot at working it with at least CW. I think you said you could make 10 watts on 435 and had a receive preamp for 2 meters. get some 1 by 2 and welding rod and make a quagi for 435 and use the shortest, best coax to get it to the rig. My satellite antennas are on a RS tripod with a 10 foot mast right outside the window with a coax run of less than 25 feet of 9913. Then build a quad or quagi for 2 meters (quad is shorter and not as wide) and put the preamp right at the antenna. If you can swing your current mast, just put a crosspiece on it that can tilt up (I made the one we use for field day with a door hinge) and arrange it so the weight of the antennas tilts it forward to the horizon. Then attach a tilting arm and some string to pull it up to the required elevation. I made an elevation meter with a school protractor and a string and nut.

I think you could work the satellite with a fixed elevation of 30, but for a lot of the good apogee time you probably want to be higher. If you can get to the antenna to make a manual elevation adjustment, I think it would be worth it. If not, you might want to pick a fixed point higher, like 60-70 degrees rather than 30 which is good for LEO birds. Your going to want to work 13 when it's near apogee with good angles.

I think you asked about some other points, but I don't have your mail in front of me. I'll end this one here and see if it helps at all. Tell me more about your 70cm/2m gear.

Kevin WB2EMS

From qrp-request@Think.COM Thu Jun 3 08:02:43 1993
Subject: Re: qrp on the birds
Date: Wed, 2 Jun 1993 20:45:22 -0500 (CDT)
From: Victoria Welch <vikki@precipice.chi.il.us>

In your article <199306012030.AA15699@postoffice.mail.cornell.edu> ["qrp on the birds"], you wrote:

> Vikki, I've tried some qrp on A013 with pretty good results. I've heard
> myself back with only a watt or two up on cw. I've heard at least one phone
> station running a claimed watt that was perfectly copyable. (good squint
> angles that night) I often run barefoot (10watts, 736 throttled back to not
> cook the D1010) and do pretty well and can hear myself with the power
> turned down from 10 watts.

I do so love encouragement ! A013 has just become a possibility (I think) with a KLM 70cm (ancient ssb/cw rig that does have a switch to put it on 435 MHz). My MAJOR concern here is antennas. We live in an apartment now and have 25' of radio shack steel mast up on the patio with a halo for 2m and a "9 db" colinear for FM <gakkk><blush>, a hamstick dipole for 6m and as soon as I can find some decent coax (small VERY low loss and VERY flexible) We will have a (got to look on top of bookcase <grin>) home brew 11 element yagi to stuff up there. The rig runs about 10 watts and I may try the RS10 approach of angling it up about 30 degrees and seeing what sense I can make out of this squint angle thing - if I understand it correctly, that is when the antennas on the bird are pointed at you wherever it may be. I'll also need to plot correspondances between uplink and downlink frequencies (after the fiasco with the AOP-1, this has lain idle for several years) and figuring out if A013 is inverting or not, I do have a reference chart around here someplace, if I can find it. Doing this from an apartment would be really neat. Since we are into disaster services the landlord cuts us some slack...`

> With a simple, linear, homebrewed quagi and an ARR preamp I've copied Z8
> level on the ZRO test. Andy MacAllister said at the Z8 point they were
> running something like 185 mw to the uplink antenna! Some people have
> copied Z9, 3db less input than that. I heard it but couldn't copy it.

Last time we tried the ZRO test, some idiot was QRMing it. I suppose that other than the abject rudeness of it, it make little difference as we were having a very difficult time with the AOP-1 anyway. I'll have to look into helixs for 435 at least and see if we can figure out someplace to store it when not using it. I think the pre-amps are still back in Johns R^3 room. With the MMICs this shouldn't be too big an issue anyway.

> [many other encouraging and exciting ideas deleted for space :)]

> Dontcha love to blue sky some fun ideas?

Yes, I very much do. I don't see HF as part of the future and for some reason (maybe just to me) VHF/UHF/SHF is very exciting, but one requires some space to do it and of course some knowledge. I don't know if I can accomplish it from where I am now, but we won't always be here either ;-). I'd like to save some pennies and get one of the multi-band radios (50Mhz-1.2GHz) with all the sattelite stuff built in, but that is going to take a while (and a BIG truck for all the pennies :).

Time to dig out the satellite tracker, get some updated KEPs and see if I have any luck. I might just take some time off from the computer projects and see what I can do !

Take care, Vikki.

--

Vikki Welch, SysAdm Welch Research, WV9K, DoD#-13, NEIQRP #13. ARCI#(NOT)
vikki@precipice.chi.il.us(daily), vikki@wv9k.atl.ga.us(weekly)

From qrp-request@Think.COM Sat Jun 5 14:10:29 1993

From: vikki@precipice.chi.il.us (Victoria Welch)

Subject: Re: qrp on the birds - mis-directed disconnect request...

Date: Sat, 5 Jun 1993 12:44:11 -0500 (CDT)

Hi Gordon,

> please unsubscribe me as i am going on a vacation and do not relish
> 1000 mail messages wating for my.
> Thanks
> Gordon
> gcouger@olesun.agen.okstate.edu
>

This should have been sent to "qrp-request@think.com" with a subject of "unsubscribe" and the body of the message containing the same thing (only, as I understand it).

When you get back just send a message to the same place with a subject line and message body of "subscribe" and that will get you going again.

Hope this helps and that you don't get nasty mail from the guy in Hawaii or the guy in England as I did when I didn't know how to deal with this (someone subscribed me to the list and I had never dealt with a mailing list before :). Fortunately most of the people were very nice and helpful as well. Unfortunately we do have some of the rude and clueless in our ranks.

BTW: I did forward a copy to where it should have gone for you - Hope you have a pleasant vacation !

Take care es 72, Vikki.

--

Vikki Welch, SysAdm Welch Research, WV9K, DoD#-13, NEIQR# 13, ARCI#(NOT)
vikki@precipice.chi.il.us(daily), vikki@wv9k.atl.ga.us(weekly)

From qrp-request@Think.COM Mon Jun 7 11:50:38 1993
Date: Mon, 7 Jun 93 08:41:15 PDT
From: ed@imp.pnl.gov
Subject: QRP PLUS Xcvt

Greetings All --

I was at the SEA-PAC Ham Convention this past weekend and spent some time talking to a ham and looking at a couple of units billed as "A Quality Transceiver for the Serious Low Power Operator". Basic specs are: 5 watts CW & SSB 160M thru 10M, SCAF Digital Audio Filters (100 Hz to 2400 Hz Variable Bandwidth), 20 Memories, RIT, Split, Full QSK. Size is 5 1/2"W x 4" H x 6" D. Power is 140 Ma on receive, and 1 amp on xmit. Fully synthesized and LARGE display and lettering on front panel (I could operate this rig without my glasses!). Simple (but full) front panel has LCD Freq display down to 100 Hz though it tunes in 10 Hz steps. 20 dB switchable attenuator, Three pos switch for XCVE, RIT, SPLIT. REV button for split. BANDWIDTH button for adjusting (and displaying SCAF bandwidth). FAST button for tuning, MEM button for scanning through the memories (used together these buttons store to a memory). Mini-phones jack, S-meter, Volume/OFF control and Tuning Knob. On the back is Mic connector, screwdriver adjust output power level (for the milliwatters), sidetone level (freq seems to be fixed at 700 Hz, oh well...), power, etc. Most of the top of the case covers a "large" speaker chosen for efficiency. Got the fellow to pop the lid and looked inside. Construction was very clean and neat and consisted of 4 or 5 (can't remember) PC boards stacked horizontally and taking up most of the space. the design is a single conversion with up conversion to 50 MHz IF. A number of units are out for evaluation to fellow qrp enthusiasts and first production run in July. Price is listed at \$595. For info you can write to:

Index Laboratories
19913 48th Street
Longbranch, WA 98351

(206) 884-3855

Comments: No detailed specs on performance -- he will send me a users manual with schematic, etc when available in next month or so. Was hard to judge perf in ham-com atmosphere with no antenna to speak of and background noise, etc. This might be a very nice unit at half the price and size of an Argo II. No separate modules compared to the Scout. If the specs and performance turn out to be as good as they should, this could be a real winner. I really liked the ability to operate split and the all-band function, as well as the variable bandwidth on receive. I suspect requests for info could help this guy gauge the market and encourage him in his endeavor. No connection at all, but certainly interested...

72 de N7YQR, Ed

```
~~~~~  
~ Edward W. Kleckner K6-84   Internet:   ew_kleckner@pnl.gov ~  
~ Battelle Northwest                n7yqr@amsat.org ~  
~ Battelle Blvd.             Packet:   N7YQR@WA7EAQ.WA.USA.NA ~  
~ Richland, Washington       Voice:      (509) 376-8425 ~  
~ 99352-0999                 FAX:        376-5368 ~  
~~~~~
```

From qrp-request@Think.COM Mon Jun 7 15:06:54 1993
From: Kevin Purcell (Rho) <a-kevinp@microsoft.com>
Date: Mon, 7 Jun 93 12:02:41 PDT
Subject: RE: QRP PLUS Xcvr

This is KG7ME's rig I mentioned before. It is a single up conversion to 50Mhz superhet.

Unfortunately I didn't make it to SeaPac :-(

Kevin Purcell N7WIM / G8UDP
a-kevinp@microsoft.com
"We conjure the spirits of the computer with our spells"

From: <netmail!ed@imp.pnl.gov>
To: <qrp@Think.COM>
Subject: QRP PLUS Xcvr
Date: Monday, June 07, 1993 8:41AM

Greetings All --

I was at the SEA-PAC Ham Convention this past weekend and spent some time talking to a ham and looking at a couple of units billed as "A Quality Transceiver for the Serious Low Power Operator". Basic specs are: 5 watts CW & SSB 160M thru 10M, SCAF Digital Audio Filters (100 Hz to 2400 Hz Variable Bandwidth), 20 Memories, RIT, Split, Full QSK. Size is 5 1/2"W x 4" H x 6" D. Power is 140 Ma on receive, and 1 amp on xmit. Fully synthesized and LARGE display and lettering on front panel (I could operate this rig without my glasses!). Simple (but full) front panel has LCD Freq display down to 100 Hz though it tunes in 10 Hz steps. 20 dB switchable attenuator, Three pos switch for XCVE, RIT, SPLIT. REV button for split. BANDWIDTH button for adjusting (and displaying SCAF bandwidth). FAST button for tuning, MEM button for scanning through the memories (used together these buttons store to a memory). Mini-phones jack, S-meter, Volume/OFF control and Tuning Knob. On the back is Mic connector, screwdriver adjust output power level (for the milliwatters), sidetone level (freq seems to be fixed at 700 Hz, oh well...), power, etc. Most of the top of the case covers a "large" speaker chosen for efficiency. Got the fellow to pop the lid and looked inside. Construction was very clean and neat and consisted of 4 or 5 (can't remember) PC boards stacked horizontally and taking up most of the space. the design is a single conversion with up conversion to 50 MHz IF. A number of units are out for evaluation to fellow qrp enthusiasts and first production run in July. Price is listed at \$595. For info you can write to:

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72 de N7YQR, Ed

~ Edward W. Kleckner K6-84 Internet: ew_kleckner@pnl.gov ~
~ Battelle Northwest n7yqr@amsat.org ~

~ Battelle Blvd. Packet: N7YQR@WA7EAQ.WA.USA.NA ~
~ Richland, Washington Voice: (509) 376-8425 ~
~ 99352-0999 FAX: 376-5368 ~
~~~~~

From qrp-request@Think.COM Sat May 29 12:54:22 1993  
Subject: Re: qrp rtty  
Date: Sat, 29 May 1993 10:22:31 -0500 (CDT)  
From: John Welch <jjw@precipice.chi.il.us>

To: fkf1@cornell.edu (F. Kevin Feeney)  
Subject: Re: qrp rtty  
Newsgroups: qrp  
In-Reply-To: Your article <199305271855.AA00192@postoffice.mail.cornell.edu> of  
Thu, 27 May 1993 09:55:50 GMT  
Reply-To: jjw@precipice.chi.il.us (John Welch)  
Return-Receipt-To: jjw@precipice.chi.il.us  
Organization: Welch Research

In your article <199305271855.AA00192@postoffice.mail.cornell.edu> ["qrp rtty"],  
you wrote:

>  
> Anybody know about the qualcom DDS transmitter that somebody did a while  
> back in 73? What's one of those chips cost?  
>  
> Kevin, WB2EMS

From Qualcomm, the chip is \$50, with a \$150 minimum order. From Elktronics NE,  
the chips run \$39. The DAC used can be purchased from Digikey for  
under \$20, likewise the 55MHz oscillator for under \$4.

BTW, in the article, the amp is \*horribly\* inefficient, and there were  
(as usual :) a few errors. There's also a better way to set the  
frequency - article coming soon to a 73 magazine near you. It uses  
thumbwheel switches and roms in an unusual configuration to give 10Hz  
steps from 10Hz to 21.5MHz. Kits for this are available from the same  
place as has the other kits.

Note: While I \*did\* write the articles, and do have a few of the kits  
here, I do \*not\* make any money from this. I don't really want to  
sell the kits - I designed and built it for me, and I know of 1 source  
for the kits and 2 for the circuit boards.

If anybody is interested in discussing the pros/cons of DDS, drop me a  
note. I have a very irregular mailing list that I let know of new

TW-1 stuff and fixes to problems.

72 et al. -->jjw

--

John Welch, N9JZW

From qrp-request@Think.COM Wed Jun 9 10:24:57 1993

Date: Wed, 9 Jun 1993 10:24:45 -0400

From: Scott Cranston <cranston@zk3.dec.com>

Subject: QST QRP Articles

Extracted from the QRZ! cd-rom....

Note: Since the introduction of solid-state devices many ARRL transmitters have been QRP. Refer to the "ARRL Handbook", the "QRP Notebook" and the "First Steps in Radio" publications for additional circuits. We also have a bibliography of HF transmitters that has a lot of QRP circuits. Other amateur publications also contain many low power circuits that will be of interest to the QRP'er.

|               |                                                |                  |
|---------------|------------------------------------------------|------------------|
| 1980 August   | QST<br>An Optimized QRP Transceiver            | p. 14            |
| 1981 April    | QST<br>A QRP Transmitting Converter            | p. 35            |
| 1985 January  | QST<br>Simple QRP Gear Versus Good Performance | p. 22<br>5 pages |
| October       | QST<br>Better Ears for the MAVTI-40 Transcvr.  | p. 14<br>7 pages |
| 1986 February | QST<br>Four Watts, QSK, for 24.9 MHz           | p. 23<br>4 pages |
| July          | QST<br>The SWR Twins - QRP and QRO             | p. 34<br>4 pages |
| August        | QST<br>The QRP Transmatch - A Novel Approach   | p. 30<br>4 pages |
| December      | QST<br>Three Fine Mice - MOuSeFET CW           | p. 19<br>6 pages |

## Transmitters

|              |                                                           |                  |
|--------------|-----------------------------------------------------------|------------------|
| 1987 July    | QST<br>Low-Cost QRP Power Boosters                        | p. 30<br>4 pages |
| November     | QST<br>Build This QRP Omni Box                            | p. 18<br>5 pages |
| 1988         | QST<br>Some QRP Transmitter Design Tips                   | p. 30<br>3 pages |
| 1989 October | QST<br>The QRP 3-Bander (transmitter)                     | p. 25            |
| 1990 January | QST<br>A QRP SSB/CW Transceiver for 14 MHz.               | p. 28            |
| February     | QST<br>A Simple and Accurate QRP Directional<br>Wattmeter | p. 19            |
| February     | QST<br>Why QRP                                            | p. 43            |
| December     | QST<br>A Portable QRP CW Transceiver--Part 1              | p. 44            |
| 1991 January | QST<br>A Portable QRP CW Transceiver--Part 2              | p. 17            |
| February     | QST<br>The BP-80: An 80-Meter CW Transceiver              | p. 23            |

From qrp-request@Think.COM Wed Jun 16 13:50:14 1993

From: dquagliana@attmail.com

Date: 16 Jun 93 18:28:08 GMT

Subject: Request for comments on 80/40M Explorer from August 1992 "73"

I'd like to hear comments (good and bad) from anyone who has build or tried to build the 80/40 meter Explorer receiver that was featured in the August 1992 edition of "73 Amateur Radio Today." This little receiver is based on the TDA7000 chip and is supposed to outperform similar NE602 class receivers. I'm particularly interested in hearing your comments on:

- any modification you have successfully performed (such as adding other



- bands, companion transmitters, computer interfaces -- whatever! )
- your impression of the overall performance of the Explorer as a QRP rig
- How does it compare to other QRP rigs, especially NE602 type receivers.
- any corrections to the original article that appeared in "73"

Please reply to the QRP list or send mail to [dquagliana@attmail.com](mailto:dquagliana@attmail.com)

Douglas D. Quagliana KA2UPW  
[dquagliana@attmail.com](mailto:dquagliana@attmail.com)

From [qrp-request@Think.COM](mailto:qrp-request@Think.COM) Tue Jun 8 17:43:55 1993  
Date: Tue, 8 Jun 93 16:38:30 CDT  
From: [Ken.Hopper@Central.Sun.COM](mailto:Ken.Hopper@Central.Sun.COM) (Ken Hopper SE Chicago Loop)  
Subject: Re: SB-90 paddles

New paddles were advertised by a company called ARE. They were purchased by AEA.

The paddles are the result of "re-tooling" of a Russian defense industry plant to civilian mfg.

The paddles are 3.4lb and chrome plated. Look great in the picture.

AEA is having considerable difficulty with the customs dept.

You can call in and get on the waiting list (206)-774-5554.

Suggested price is \$79 + 5 P/h.

72,

Ken - N9VV

From [qrp-request@Think.COM](mailto:qrp-request@Think.COM) Thu Jun 17 07:55:32 1993  
From: [mvjfmvubr.att.com](mailto:mvjfmvubr.att.com)  
Date: Thu, 17 Jun 93 07:55 EDT  
Subject: Silent Key

QRPers, 7/17/93  
I recieved a call from Paula Franke (Pres. ARCI) last evening.

Bob Spidel, W6SKQ passed away yesterday from a heart attack.

Bob was a prime mover for the QRP Zuni Looper Field Day group.  
In fact, they used his call.

I dont know what is going to happen, but Bob called me 2 nights  
ago to tell me of his plans for FD.

From qrp-request@Think.COM Thu Jun 17 08:01:21 1993  
From: mvjff@mvubr.att.com  
Date: Thu, 17 Jun 93 07:56 EDT  
Subject: Silent Key

From mvjff Thu Jun 17 07:55 EDT 1993  
From: mvubr!mvjff (James M Fitton +1 508 960 2577)  
To: QRP@Think.COM  
Subject: Silent Key  
Status: R

QRPers, 7/17/93  
I recieved a call from Paula Franke (Pres. ARCI) last evening.

Bob Spidel, W6SKQ passed away yesterday from a heart attack.  
Bob was a prime mover for the QRP Zuni Looper Field Day group.  
In fact, they used his call.

I dont know what is going to happen, but Bob called me 2 nights  
ago to tell me of his plans for FD.

72, Jim - W1FMR mvjff@mvubr.att.com

From qrp-request@Think.COM Thu Jun 10 12:32:36 1993  
Date: Thu, 10 Jun 1993 11:32:43 -0500 (CDT)  
From: "Jeff M. Gold" <JMG@tntech.edu>  
Subject: Simple home made paddles

Hi.. here is my idea:

for my backpack I came up with a simple and inexpinsive rugged set of  
paddles to use for QRP. You can see a picture of them in the new ham

section of Feb. 1993 QST.. think I even described them.

I took a plexiglass organizer and hacksawed off the pencil holder (probable can find one for about .98 or use something else). It is about a one inch square by 4". I tried all types of levers and finally came up with a simpler and better approach. I used the metal pieces that are in the back of almost every IBM clone as place holder for adding peripherals (when you add a peripheral.. you throw these away.. very easy to come by). They have the back bent over and a screw hole already.

I cut some holes in the middle of the plexiglass and used very sensitive momentary pushbuttons... had some small RS pushbuttons, but they didn't work as well. You can get a good selection at ham fests usually.

I bolted the metal pieces on the back of the plexiglass with 2 screws each. I bent them around the buttons till slight pressure closed the switches. I cut a small finger grip size (used rounder English style rather than Bencher) plexiglass pieces and bolted them to the front of the metal pieces. I mounted the plexiglass on a piece of wood and bolted some brass weight to the bottom.

Worst case is that I have to slightly bend the metal to the feel i like when I get where I am going. They work real well and have been using them for quite some time now. They can be built for about \$3.00 or so.. or you might have everything you need.

73

Jeff,AC4HF

From qrp-request@Think.COM Wed Jun 16 16:46:53 1993  
Date: Wed, 16 Jun 93 20:38:39 GMT  
From: jkearman@arrl.org (Jim Kearman)  
Subject: Slide Switches

Frankly, I hate mounting the things. Advantages: they don't snag and get moved accidentally as easy as bat-handle toggle switches. easier to gang, if you're creative.

From qrp-request@Think.COM Wed Jun 16 15:06:59 1993  
Date: Wed, 16 Jun 93 13:55:21 -0500  
From: adams@chuck.dallas.sgi.com (Charles Adams)  
Subject: slide switches vs toggle

since we've gotten one question, i'll ask another. what is

advantage of slide switch over toggle switch? my preference is for the toggle, since i can get them in miniature form and requires only one hole in chassis. slide switches require extra metal work for rectangular hole and two screw holes to hold it in place. also more panel space required.

my vote: toggle switch

inquiring minds wanna know. email to me. i'll tally the votes.  
bribes accepted. ;-)

72 de k5fo/3 silver spring MD dit dit

Chuck Adams, K5FO  
CW spoken here....70+ wpm  
adams@sgi.com  
Southern Education Center  
Dallas, TX  
(214) 788-4122 (voice)  
(214) 788-1376 (fax)

From qrp-request@Think.COM Wed Jun 16 18:52:53 1993  
Date: Wed, 16 Jun 1993 15:56:31 -0800  
From: burdick@interval.com (Wayne Burdick)  
Subject: Re: slide switches vs toggle

Slides are cheaper. Also, they're a good choice for switches that you don't want to have someone turn on accidentally, such as an on-off switch. Miniature toggles are real easy to "bump" on.

As for holes, a round one will work just fine for a slide switch--it just won't look very good!

73,  
Wayne, N6KR

Wayne Burdick  
wayne@interval.com  
(415) 354-0928

Interval Research Corp.  
1801-C Page Mill Road  
Palo Alto, CA 94304

From qrp-request@Think.COM Tue Jun 1 09:23:20 1993  
Date: Tue, 01 Jun 1993 08:23:40 -0500 (CDT)  
From: "Jeff M. Gold" <JMG@tntech.edu>

Subject: Spirit addendum

Just some additional notes about the Spirit:

Had the local guru over last night to fix my 405 amplifier. While he was there I got him to really go over the Spirit. This guy designs and builds QRP equipment and I think he may be coming out with a kit soon.

His first impression was the same as mine: "the receiver is insensitive." Then we fired up the MFJ 20 meter and the Yaesu 757. His next impression was: "this receiver is either insensitive or very narrow banded." I little while after operating it: "this is a pretty good rig" (that is about as positive as I have ever heard him).

I have done some more comparisons and was listening to it compared to the Yaesu. I noticed during the WPX that I didn't need an additional filter to work the contest.. pretty neat. This morning while playing around I decided to check out the narrow idea. I found a station and the 20 meter band was a bit noisy here this morning. With the Yaesu in the wide position, the Spirit was receiving better and with a lot less noise. With the Yaesu in the narrow filter position, they were pretty equivalent, with the Oak Hills being quieter. Of course I had the Yaesu pre-amp on at the time.

Proves two main points to me about QRP and QRP Kits:

1. operating QRP does not mean less contacts or inferior performance
2. QRP doesn't mean (or doesn't have to mean) poor quality equipment

73

Jeff,AC4HF

From qrp-request@Think.COM Wed Jun 16 09:38:07 1993  
Date: Wed, 16 Jun 93 13:33:20 GMT  
From: PENC@psumeteo.psu.edu  
Subject: square holes

Sorry I can't direct messages to single users (we don't have a name server on this computer system), but comment may be of interest to others. To the person looking for methods of getting a square hole, other than filing. You can purchase a relatively inexpensive "nibbling tool" through many sources, including radio shack. You must first drill a 1/4" hole, then you can use the nibbling tool to cut out a rectangle a bit at a time. With a little practice you can do a nice job-- almost commercial looking. Otherwise, you must invest

in a rectangular socket punch. These are very expensive-- I think around %150. each. Go with the nibbling tool. I was able to produce some very clean rectangular holes for switches with it-- and they're cheap (\$5-\$10.).

de WK2A

From qrp-request@Think.COM Tue Jun 15 20:07:20 1993  
Date: Tue, 15 Jun 93 17:05:32 PDT  
From: dh@deneb.csustan.edu (Doug Hendricks)  
Subject: Square holes????

I want to mount some slide switches and need to cut some rectangular holes. Does anyone have any ideas other than drilling a 1/4" hole and using a file? If so, I am interested. 72, Doug

x

From qrp-request@Think.COM Thu Jun 17 13:21:47 1993  
Date: Thu, 17 Jun 1993 10:25:32 -0800  
From: burdick@interval.com (Wayne Burdick)  
Subject: SSB rig idea using cheap filters

As an alternative for using the cheap 10.7 MHz SSB filters discussed recently, how about using an 18.000MHz crystal (about \$1 from digikey) in a VXO circuit, and subtract to get to the 10.7 MHz I.F. In other words:

$$18.0 - 7.3 = 10.7$$

The VXO crystal can easily be moved down to 17.95 MHz, so you can tune from 7.25 to 7.30, i.e.:

$$17.95 - 7.25 = 10.7$$

Since this is a subtractive mixing scheme, you'll need the USB BFO crystal to get LSB reception. (Hopefully someone is checking my math here!)

I don't think there will be any birdies at all with this mixing scheme, and as a bonus, the image frequency gives you USB operation on 10 meters ([17.95->18.0] + 10.7 = [28.65->28.7]). If you don't mind paying \$13 for a custom 17.900 MHz crystal (try JAN crystals, 800-526-9825), the range becomes 7.15->7.2 and 28.55->28.6 MHz. Anyone in the mood to build a 40/10 SSB QRP rig?

73,  
Wayne, N6KR

Wayne Burdick  
wayne@interval.com

Interval Research Corp.  
1801-C Page Mill Road

(415) 354-0928

Palo Alto, CA 94304

From qrp-request@Think.COM Sat Jun 12 01:30:54 1993  
Date: Fri, 11 Jun 93 22:30:17 -0700  
From: mcronenw@pyramid.com (Mark Cronenwett)  
Subject: Subscribe

Please subscribe me.

mcronenw@pyramid.com

From qrp-request@Think.COM Mon Jun 14 15:44:25 1993  
Date: Mon, 14 Jun 93 12:43:49 -0700  
From: mcronenw@pyramid.com (Mark Cronenwett)  
Subject: subscribe

From qrp-request@Think.COM Tue Jun 15 08:53:54 1993  
Date: Tue, 15 Jun 93 06:53:32 MDT  
From: datwyler@moons.sim.es.com (Doug Datwyler)

15 Jun 1993

QRP netters!!

I have obtained over many years of sample requests a few NE602/SA612 devices, and never used them. Since they are low power, they fit an idea I have. Several sources have noted that they may have some short comings. Can those of you who have used them please give a few pointers about getting around these weaknesses?

I especially need a few clues to use of the oscillator and mixer inputs.

Thanks,

Douglas L. Datwyler WR70  
datwyler@moons.sim.es.com

From qrp-request@Think.COM Mon Jun 7 13:38:14 1993  
Date: Mon, 7 Jun 93 13:37:56 -0400  
From: Gary Bishop <gb@cs.unc.edu>  
Subject: Super Keyer Kit Gone?

Is it true that the Super Keyer is no longer available as a kit from

Idiom Press? The Logi-whatever version is too expensive....

73 wa4fut

From qrp-request@Think.COM Fri Jun 18 08:45:13 1993  
Date: Fri, 18 Jun 93 08:42:34 EDT  
From: Frank.Milos@East.Sun.COM (Frank Milos - Sun USOPS CSU Manufacturing Engineering)  
Subject: Super Tee Antenna Tuner??

Hi all!

Has anyone built the Super Tee Antenna Tuner which appeared in the June 1992 edition of the QRP Quarterly? I'm gathering up the parts to put one together and could use the help of the group to locate suggested sources for parts.

The parts list calls out for a dual gang 365 pf variable cap. Does anyone know of any sources for this critter?

Also, there is a resistor at the bottom of the schematic. The value listed is 4K7 ohms. Is this supposed to be 47K or 4.7K?

Thanks in advance!

72

Frank - N01E

From qrp-request@Think.COM Fri Jun 18 09:16:34 1993  
From: mvjff@mvubr.att.com  
Date: Fri, 18 Jun 93 09:15 EDT  
Subject: Super Tee Tuner

Frank, N01E

The W3TS Super Tee Tuner.

My first Super Tee Tuner used an old broadcast band variable 365pf, and slide switches, in a plastic bottom, ~ 8X4 inch, Radio Shack box chassis.

After seeing the KN1H compact, backpack version, #2 is being made with tiny toggles, a tiny air spaced triple



365 pf variable found at Dayton, and a small bud box chassis.

The 4.7k resistor, not critical, is used only to bleed static charges off the antenna.

72, Jim - W1FMR mvjfmvubr.att.com

From qrp-request@Think.COM Mon Jun 7 15:38:40 1993  
Date: Mon, 7 Jun 93 15:38:25 -0400  
From: Gary Bishop <gb@cs.unc.edu>  
Subject: SuperKeyer II

It was the SuperKeyer II that I was asking about. The microprocessor based version that you \*have\* to get the kit the build. Rumor has it that the kit is no longer available. True?

wa4fut

From qrp-request@Think.COM Thu Jun 3 09:00:28 1993  
Date: Thu, 03 Jun 1993 08:00:50 -0500 (CDT)  
From: "Jeff M. Gold" <JMG@tntech.edu>  
Subject: tales of the Spirit

Group,

a little follow up story about the Oak Hills Spirit that just stuck in my mind.

The contest was over and I wanted to talk with some people and see how the rig sounded in some more detail than "599 NR 1234". I have had the feeling that although the Receiver is working GREAT, that something was just a little off with the Transmitter. I pulled the case off and got my alignment tools out. I tweaked the TX/RC freq. a little to it was right on the money. I had my QRP Wattmeter on and noticed when I used the tune/operate switch the SWR was 1:1. When I sent some code the SWR would go up a little on the dashes ever once in a while. I looked for poor grounds and checked out ever wire in the keyer.. couldn't find anything even remotely questionable.

I put the cover back on the rig and powered it up. I tuned around and heard someone calling CQ. I answered his call and he came right back to me. After exchanging names and QTHs he came back with this comment "It may be my ears, but I think your transmit is dropping off on your dashes" I had to hold the tears back from my eyes. Here I thought I had done the ultimate building job, and this person was telling me my signal wasn't behaving. I calmed myself down and came back and asked him if he

would help me figure it out. After a little more talking he said "check your antenna connections" This guy is on the other end of a wireless transmission telling me I had a very slight problem and suggesting where it was.... BLEW MY MIND... the nice way he suggested things instead of saying.. "you know you are a lid and your transmit signal stinks".. made me heed his advice. I checked the patch cord between the QRP Wattmeter and the rig. It was a long piece that was one of my early endeavors into soldering 259 connectors.. I pulled off the coax and replaced it with a commercial model I had purchased at a ham fest.

The SWR problem disappeared. I mean we were talking about the SWR going from 1:1 up to 1.2:1 (or less).. this wasn't a big problem.. some ears.

Got it fixed and got on the air. Had about a 45 min QSO with the next guy who said he was real impressed with my signal and couldn't believe it was only 5 watts. I worked a SH5SS (or something like that) and an EA7.... both on the first call (and needless to say there were a few other stations calling.. where are these guys located? anyone know).

Well it is looking more and more like I might not be able to sell this rig which was my initial plan.. may just be a permanent resident.

73

Jeff,AC4HF

From qrp-request@Think.COM Fri Jun 18 11:46:00 1993  
Date: Fri, 18 Jun 93 10:45:51 -0500  
From: adams@chuck.dallas.sgi.com (Charles Adams)  
Subject: thanks

thanks to all who posted the info on the tuner. it goes to show you the most bothersome of problems require only a simple solution.

i've mentioned several times that over the years my 80 meter long wire up 10 meters has cost me some finals in rigs. this due to static charge build up on the wire. these charge build ups can occur due to thunderstorms nearby or also wind turbulence also.

i've seen discharges up to two inches without the antenna grounded. also the mfj tuner arched inside also.

so, the first thing i'm gonna do when i get home is install a 4.7K non-inductive resistor across the output terminal to ground. thus, i can stop the business of grounding the antenna with test lead with alligator clips. i don't always remember this final shutdown procedure. of course, i will ground antenna during thunderstorms

and while away for long periods of time, just in case. ;-)

don't want a \$200 rig to act as a fuse for a \$20 antenna!!!!

72 de k5fo/3 t u es gl dit dit

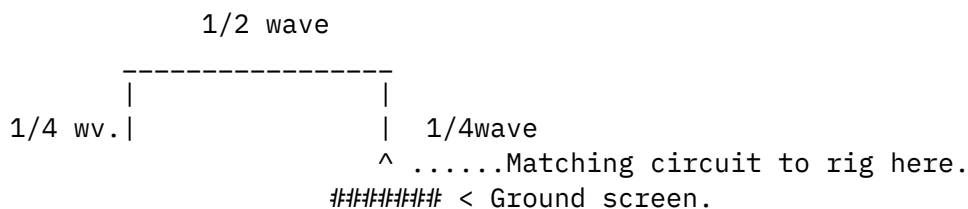
"This is UNIX(tm)! I can do this." - Lex in Jurassic Park in front of SGI workstation.

Chu

From qrp-request@Think.COM Wed Jun 2 12:21:28 1993  
From: Kevin Purcell (Rho) <a-kevinp@microsoft.com>  
Date: Wed, 2 Jun 93 08:41:32 PDT  
Subject: The Half Square: A 2 element Bobtail Curtain.

Jim - W1FMR, mvjf@mvubr.att.com says:

I have used one with much success. It was not fed at the top, but at the bottom of 1 element.



It was a non-resonant antenna, tuned with a parallel LC network connected between 1 element of the antenna, and the ground screen (a 3X5' piece of hardware cloth or screen).

I say:

It certainly is a resonant antenna (it's 1 wavelength long) but you are feeding it at a high Z point hence the parallel LC circuit.

Feeding it in the corner seems easier (and does away with the screen).

The reasons why this antenna is better than a few others is:

1: the radiating elements are vertical, leading to a lower angle of radio than a dipole at the same height. The horizontal currents in the 1/2 wave "top" section cancel (in first approximation) eliminating radiation upward. Hence its a good DX antenna but a poor "local" antenna.

2. Either the voltage feed or the current feed result in the high currents being at the top of the radiator (unlike a regular bottom fed

quarterwave where the current is close to the ground.

3. No ground losses (even with the voltage feed the currents are low in the screen so the losses here are low).

4. You get some gain (and directionality of course) from feeding two phased vertical quarter waves (but not much).

There was also a writeup in CQ in the last few months about this antenna -- a few plots of its calculated performance were shown plus details of how to build one (a two band version I think?).

Final question which I havent set in my mind yet: is this a balanced antenna? I think it is (think about the currents around the feed point) and should be fed with a balun. But non or the corner fed designs actually do this. It might make a difference if your coax is horizontal for some distance radiating and picking up high angle waves. This would degrade its prference for low angle signals.

As an aside I have seen the Zuni Looper's use Sterba curtain's on 20m at some high to get killer QRP signals. A good idea for field day.

Kevin Purcell N7WIM / G8UDP

a-kevinp@microsoft.com

"We conjure the spirits of the computer with our spells"

From qrp-request@Think.COM Sat Jun 5 20:38:03 1993

From: vikki@precipice.chi.il.us (Victoria Welch)

Subject: Thoughts on keyers and keys...

Date: Sat, 5 Jun 1993 19:05:24 -0500 (CDT)

> Doug Hendricks is interested in a Memory Keyer. My own take on this situation  
> is that the CMOS Super Keyer II in the (nov?) 1990 QST is easy to build  
> and has adequate memory for my contesting tastes. It is really great  
> to operate, cheap, etc. Love it to death. Really. The feel of the keyer  
> is far better than any other I have ever used. Now if I could just find  
> the right paddles (Bencher is "adequate" for the job.)  
>  
> The only possible drawback is the amount of memory and the basic 4 locations  
> for those memories. If you get real fancy with contesting, it may not  
> do the trick. If you are interested, write me directly and I can tell you  
> more about my experience with the CMOS Super Keyer II.

The keyer is decent, I have one and have been quite pleased with it all in all, but it isn't, as Clark notes, exactly over endowed :). Since it is unbuildable from the handbook and too expensive to purchase anymore (they no longer sell in kit form, last I heard). For the money I would probably get one of the mfj or aea keyers.

As for the key itself, get a Kent, you'll never regret it. I had a bencher and was less than impressed with it. I never did get it adjusted (and it wasn't for lack of trying :) and if disturbed it would erupt in a shower of parts (I hear the new ones are better about that) or if undisturbed, it would go off at 0300 due to the expansion coefficients of dissimilar metals (my husband loved that :) as I like movement to be minimal.

The Kent, on the other hand, makes you WANT to do cw. Its solid and VERY easy to adjust (I don't mind someone else adjusting this one as it is so easy to get re-adjusted). I have had the Kent for about the same amount of time (now) that I had the bencher and have probably used it 20+ times as much, its really a pleasure. I even replaced the plastic paddles with oak using the plastic ones as a template ! I am quite pleased and several people I know have gotten them after using mine (and I from using KE9GGs). Someone here stateside is supposed to be carrying them now so you don't have to wait for Dayton or Dallas or mail order it from England.

As a last note, the thing is also SOLID. Mine spent a couple of months bouncing around in by briefcase with no problems at all. I wanna see someone with a bencher try that <grin>.

If you want to mail you comments on the keyer over here as well, I'd like to see what your experience is with it, I've heard a lot of stories about those people :). Its a real shame that the handbook left out the only "part" that makes it completely useless should you actually try to build it.

Take care es 72, Vikki.

--

Vikki Welch, SysAdm Welch Research, WV9K, DoD#-13, NEIQR# 13, ARCI#(NOT)  
vikki@precipice.chi.il.us(daily), vikki@wv9k.atl.ga.us(weekly), arrl(NOT)

From qrp-request@Think.COM Fri Jun 4 10:27:05 1993  
Date: Fri, 04 Jun 93 14:08:29 GMT  
From: jkearman@arrl.org (Jim Kearman)  
Subject: To all NE QRP May Daze Participants

The following is what a log of May Daze activity looks like.  
It was sent in by Frank, N01E. Thanks, Frank!

:Here are my results for the May Daze "SPRINT". I missed the first  
:2 Thursdays and got in a little time on the last 2 Thursdays.

:

:DATE TIME CALL RST-S RST-R NE NR NAME

```

:
:05/21    0133 WA1GUV    459  549  126  TOM
:    0137 VE2DRB    559  559  94   BOB
:    0150 WA1JXR    569  569  12   GREG
:
:05/28    0118 VE2DRB    449  449  94   BOB
:    0125 W1FMR    569  579  1    JIM
:    0129 NG1G 579  579  2    JACK
:    0133 KN1H 579  569  3    JOHN
:
:RIG:      YAESU FT-707
:PWR:      1W
:ANT:      G5RV fed with 300 ohm TWIN-LEAD
:
:
:PS - Maybe I'll win as the first to send in a log!
:
:72
:
:Frank, N01E
:
:
As I mentioned to Frank, there are two reasons why he won't
win:

```

1. Careful inspection of the log shows he failed to work the Contest Chairman (me). Failing to work me is no excuse for not including my call in his log. Other participants please note.

2. KN1H's log arrived in yesterday's postal mail. This fact might have been overlooked, if not for (1). After I harangued him at the Hosstrader's Hamfest, KN1H \_did\_ work me.

72, Jim, KR1S

--  
jkearman@arrl.org

From qrp-request@Think.COM Thu Jun 17 13:24:40 1993  
Date: Thu, 17 Jun 1993 10:28:30 -0800  
From: burdick@interval.com (Wayne Burdick)

Subject: Toroids

For those who "grump" about toroid winding:

That donut-shape, though daunting,  
Is a wondrous thing to wind,  
And also is self-shielding,  
Thus yielding peace of mind.

73,  
Wayne, N6KR

Wayne Burdick  
wayne@interval.com  
(415) 354-0928

Interval Research Corp.  
1801-C Page Mill Road  
Palo Alto, CA 94304

From qrp-request@Think.COM Fri Jun 11 08:31:35 1993  
From: mvjfm@mvubr.att.com  
Date: Fri, 11 Jun 93 08:29 EDT  
Subject: Tuner +

Re: ARGO 509, Colorburst TX, Super T Tuner

Gang,

Touch not a hair on that grey old Argonaut !!  
Do not destroy an absolute classic rig, or the  
ghost of QRP past will bend your beam !!!

Please build an OHR Sprint kit for backpacking.

W3TS- designer, the "Super T Tuner" is probably the  
design to use. I don't have a comparison to other tuners,  
but it is highly regarded and can be built small.

It can match a wet noodle as well as balanced antennas.  
It was featured in QRP-NE, ARCI, and Sprat quarterlies.  
Send SASE for a copy.

I suggest joining a QRP club, and contacting Doug, KI6DS  
for reprints of past QRP Quarterlies (QQ), and indexes  
for past issues. He is on internet.

Also, Fred Bonavita, W5QJM and Rich Arland, W5YHA  
(Radio News) did filter swap articles on the Argonaut 509.

My 509 is an absolute jewel, and didn't need a filter for some  
reason. It works very well.

My HW-9 on the other hand, needed a filter, and KB1MJ sells an excellent kit.

For those that asked:

Colorburst 80m Transmitter pc board,  
Also called the 79er, by KR1S, a pc board is available  
from FAR circuits identified as "QRP-NE #1"

A few of the gang have been showing up on 3.579 on Thurs.  
Eves. ~ 9pm EST.

72, Jim - W1FMR mvjvf@mvubr.att.com  
Box 2226  
Salem NH 03079

From qrp-request@Think.COM Fri Jun 11 10:46:58 1993  
From: mvjvf@mvubr.att.com  
Date: Fri, 11 Jun 93 10:39 EDT  
Subject: Re: Tuner +

Cc.. to QRP Network

Harry,  
A couple of us have made the HW-9, KB1MJ filter mod,  
and love it.

Ed Paycina says there are Kenwood filters available  
that would work better, but the filter we used comes  
with amplifier parts and complete instructions.

It was not quite a snap to perform, but well worth it.....

For the kit and instructions;

\$26 to Paul Levesque KB1MJ  
14 Wesley St  
Dedham MA 02026

72, Jim - W1FMR mvjvf@mvubr.att.com

From qrp-request@Think.COM Thu Jun 3 13:45:46 1993  
Date: Thu, 3 Jun 93 12:45:09 -0500  
From: adams@chuck.dallas.sgi.com (Charles Adams)  
Subject: Two-Fer



Someone on the qrp mailing list called for help or information this week and i sincerely apologize for not responding earlier (this will become clear in a minute) and not keeping your name es address. hey, i'm just an old west texas country boy, not intentional (either my heritage or the slight of hand).

In the june 1992 issue of QQ, Byron Weaver, WU2J, wrote an article on the TWO-FER revisited. in this article he added some mods and a QSK circuit.

the post by a member of this group within the last week, and remember gang i'm doing this from memory, mentioned some problem with the QSK circuit. well these things come back to haunt all of us.

last night i placed the new MXM xcvr (beta version) in a aluminum case

6.5" wide x 2.5" high x 5.5" deep

16.5cm wide x 6.3cm high x 14.0mm deep (for the rest of the world)

now gang, i don't wanna brag, but this baby looks great. krylon primer followed by flat white for bottom and AVT black wrinkle for the u-shaped cover held by six #6 metal screws. 0.040 aluminum.

i have 500 of this cases (you read this right). i got them for hamcom. hope to get rid of all of them there. i was going to yank the heath hft-9 tuner out and put in one, but heath permanently mounted the caps to the front, at least that's the way it looks to me. stay tuned to this bat channel later. anyone got a good source for B&W coil stock?

back to the MXM. the receiver is the best receiver, bar none. better than the yaesu ft-707, drake 2b, icom 725, ..... !!  
500 cycle selectivity, .....

bruce williams, wa6ivc, made some mods to the qsk circuit of byron weaver. we've all built a circuit and it works. after that, we could possibly build another dozen and not a one works. that's why kit manufacturers and others should build up a bunch and check them out. this seems to be the case with the QSK circuit as published in QQ. anyway, here are the mods. you may want to try these mods. feedback greatly appreciated.

1. 2n2222s used instead of MPS6514 (someone tell me is this standard practice? is 2n2222 replace?)
2. remove the 470pF cap between the 2.2K resistors
3. remove the 0.01 bypass cap connected to the collector of MPS6514 right where the 12uH choke is.

may want to replace the two 2.2K resistors with one 10K, but play with this mod.

ok, why the mods. well, it's possible that the QSK circuit will introduce oscillations that will really cause problems with the xmit circuit. bad harmonics and the whole bit.

one additional note: for all final amplifiers, i place a 1N4697, 33V Zener across the collector to ground. for high SWR, this critter will protect your PA (but not always). i won't go into how this works, unless someone wants the details. W1FB's QRP notebook and ARRL Handbook probably have all the details. Bryon Weaver didn't show one on the new TWO-FER.

Ed P. may want to give us his ideas on this circuit or others he uses and 1N4697 usage. it seems to be standard with most manufacturers.

i note that the MC3340, attenuator, with varying control voltage from 0 to 6V seems to have a peak generation of noise around 3.6V. don't know if it's a case of just one chip that has this feature or a typical behavior. anyone else have a data point on this?

Ok, that's it for this note. hope i didn't chew up too much bandwidth. this reason for the group is to share and share alike.....

one day to hamcom and counting. 72 de k5fo (soon to be k5fo/3) dit dit

Chuck Adams, K5FO  
CW spoken here....70+ wpm  
adams@sgi.com  
Southern Education Center  
Dallas, TX  
(214) 788-4122 (voice)  
(214) 788-1376 (fax)

From qrp-request@Think.COM Fri Jun 4 12:40:13 1993  
Date: Fri, 4 Jun 93 12:28:44 EDT  
From: epacyna@auratek.com (Edward Pacyna)  
Subject: Two-fer QSK comments

The subject circuit (QQ, 6/92) was lifted from Solid State Design, Chapter on Test Equipment and Measurements, figure 91. The authors didn't say much on how

on how it works, so here's the scoop.

The receive signal path is through the two series connected diodes. On receive these diodes are turned on by forward bias. The path is established because the transistor has been turned on because base current flows through the 10K base resistor. At DC, you now have a path from the 13.5V supply through the 2.7K resistors, diodes, inductor and the CE junction to ground. At AC (i.e. RF) you have two paths. The 50 ohm path (from the collector of the power amp to the receiver input) and a 500 ohm shunt path (parallel combination of the two 2.7K resistors and the reactance of the inductor which is about 1K ohm). This is one reason there is some loss of signal (the other is due to the forward voltage drop across the diode junctions).

When transmitting, some RF is picked off the final amp and half wave rectified. This resultant voltage is then passed through a R/C network (which hopefully filters and smooths to DC) to establish a base current that turns on a second transistor (it's CE junction goes to ground). This now turns off the first transistor (because it's base current is removed) and opens up the DC path discussed above. Now the two series diodes have no forward bias and the 50 ohm signal path opens up (high impedance).

So what's wrong with this picture?

The two transistors are in the common emitter configuration. Therefore they can act as a switch (saturated mode) or amplifier (active mode), or maybe both.

If you put a scope on the half wave rectified signal discussed above you'll see that that's not DC. The bottom half of the 14Mhz waveform gets clipped and you have a train of periodic positive waveforms (i.e. 14Mhz raw DC). The 470pf capacitor helps filter and smooth it out, so don't remove it. It passes through one transistor (perhaps even being amplified) on the second. Keep in mind that even if a switch is 100% saturated, it's not an ideal switch and it will have a  $V_{ce(sat)}$  drop. The next transistor passes (or amplifies) the waveform on the diode circuit bias circuit and back to the power amp! The purpose of the .01 uF cap on the collector is to provide an AC ground for the inductor and transistor collector. Don't leave home without it. Without a lot of analysis the simplest way to correct this circuit would be to drive it with a pure DC signal (i.e. from keying transistor vs RF amp output sample). You may need to rebias the transistor (make sure it's saturated w/o exceeding the  $V_{be}$  breakdown).

Also, why such a complicated circuit. Why not use the simple series L C with 2 back to back clamping diodes? Only problem is that the  $X(c)$  and  $X(l)$  each need to be about 500 ohms which makes it suitable for monoband rigs only (but there are ways around this).

Time for lunch, so just a fast note on the MC3340 peaking when varying the

voltage from 0 to 6V. I looked at the data sheet last night. The attenuation vs voltage curve starts at 3.5v (0 attenuation) to 6.0v (80 dB attenuation). Device behavior at less than 3.5v is not specified and I suspect that there is attenuation (thus your peaking). So just control it with a voltage starting at 3.5V.

73

Ed W1AAZ

From qrp-request@Think.COM Fri Jun 4 17:23:07 1993  
Date: Fri, 4 Jun 93 16:22:42 -0500  
From: adams@chuck.dallas.sgi.com (Charles Adams)  
Subject: W1AAZ

see gang, i told you so. Ed P., W1AAZ, knows all the details about everything. ;-)

good job Ed. and i thank you many times over. i was looking at Solid Design book last nite and saw the circuit (QSK). hate it when people don't reference where things came from.....

glad to know that we got all this talent on the net.

BTW: i looked up Ed's callbook reference from the server. how is that you are two years younger, i was born on the 26th of sept and ed was born on the 25th. does that mean all Libra's are smart?????

how did you get the 26th call in the total list? inquiring minds wanna know ;-)

ciao,

Chuck Adams, K5FO  
CW spoken here....70+ wpm  
adams@sgi.com

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(214) 788-1376 (fax)

From qrp-request@Think.COM Thu Jun 3 12:34:10 1993  
Date: Thu, 3 Jun 93 11:34:01 -0500  
From: adams@chuck.dallas.sgi.com (Charles Adams)  
Subject: W1FMR again

sorry to pick on you Jim, but your Main St address must put you  
in stones throw of hq. no wonder you're a good cw op. you probably  
hear all the practice runs, CP runs, es bulletins without a rcvr.

just a 1n34 and an earphone wud be about all you'd need. ;-)

ciao,

Chuck Adams, K5F0  
CW spoken here....70+ wpm  
adams@sgi.com  
Southern Education Center  
Dallas, TX  
(214) 788-4122 (voice)  
(214) 788-1376 (fax)

From qrp-request@Think.COM Thu Jun 17 13:34:24 1993  
Subject: W6SKQ's passing  
Date: Thu, 17 Jun 1993 10:29:41 -0700  
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>

Just a note to those who knew and cared about Bob, W6SKQ. I don't  
know how to handle these things very well, and it is hard. Hope you  
all don't mind a little of my rambling emotion.

Bob was on the phone with me this weekend, and we were discussing the  
Z-match designs he had shown me, as well as field day plans. I spoke  
to Fred, K6MDJ, and he explained that Bob contacted a whole lot of his  
friends and fellow QRP folks this weekend. I'm glad we all got to  
speak with him.....but wish I could call him again today. It really  
hurts. It is so final. I suppose I never will understand.

We'll all be up there at the Zuni Loop for Field Day, but the most enthusiastic was Bob. We will have a good time, I am sure, but will miss that guy. So very much. I really liked having him on earth with us, his silly little QRP rigs, his big old HRO and all. Bye Bob. Hope to catch you on the next go-round.

72

Clark

.....

Clark Savage Turner, Graduate Student Researcher  
Safety Critical Software Group home:  
Department of Info. and Computer Science 1514 Verano Place  
Irvine, CA. 92717 Irvine, CA. 92715  
(714) 856 4049 (714) 856 2131

WA3JPG, QRP #3526, active on HF, VHF and UHF.  
Admitted to practice law in California, Massachusetts, and New York.  
ARRL Volunteer Counsel

From qrp-request@Think.COM Fri Jun 11 10:56:48 1993  
Date: Fri, 11 Jun 93 10:56:35 EST  
From: jennings@abb.com  
Subject: What are the freq's qrpers use?

Hello QRPers,

Also I saw mentioned some where that there are qrp frequencies.  
Could some one let me know what they are?

Thanks and 73

Tom Jennings KV2X  
jennings@abb.com

From qrp-request@Think.COM Wed Jun 2 13:44:38 1993  
Date: Wed, 2 Jun 93 13:44:22 EST  
From: jennings@abb.com  
Subject: What is a Zany Zune Looper

Hello QRPers,

What is a Zany Zune Loop antenna?

Tom Jennings KV2X  
jennings@abb.com

From qrp-request@Think.COM Fri Jun 4 18:18:01 1993  
From: Kevin Purcell (Rho) <a-kevinp@microsoft.com>  
Date: Fri, 4 Jun 93 15:16:48 PDT  
Subject: RE: What is a Zany Zune Loop

The Zuni Loop Mountain Expeditionary Force are a loose group (i.e. I think they'll accept you if you appear on their site!) that heads into the hills of California on Field Day and erects humongous wire antennas (of all sorts -- loops, curtains, beams, quads). They then put a huge signal into the lower 48 states with 5W!

They're exploits have been documented in the past in QQ (where I got most of my dope on them). It seems they draw the 1000 foot (or whatever it is!) circle around a group of trees then they figure out how to get the biggest load of antennas into that space: a Sterba curtain on 20m at 90 foot, a three element 40m delta, a 80m horizontal loop at 50 foot and perhaps a rhombic too!

Worth reading for inspiration!

Kevin Purcell N7WIM / G8UDP  
a-kevinp@microsoft.com  
"We conjure the spirits of the computer with our spells"

-----  
From: <netmail!jennings@abb.com>  
To: <QRP@Think.COM>  
Subject: What is a Zany Zune Loop  
Date: Wednesday, June 02, 1993 1:44PM

Hello QRPers,

What is a Zany Zune Loop antenna?

Tom Jennings KV2X  
jennings@abb.com

From qrp-request@Think.COM Fri Jun 4 19:49:42 1993  
Subject: Re: What is a Zany Zune Loop  
Date: Fri, 04 Jun 1993 16:45:54 -0700  
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>

Yeah, it IS a loose group. They even let ME play with them last field day....and we were right NEXT to the epicenter of the big shaker that day. Ahhh...it is a day my wife will not soon forget, she is now working on her General so that she can share the load on 40 CW with me. Must've really impressed her to see me chasing the rig across the table still hitting the keyer and logging the contact during the quake.

Last year, we had 7 elements up on 40 and 5 elements up on 80. I was unaware of what precise wires went to which station as far as the higher bands went.

I know that the gang is going up there very early this year to contemplate this year's effort. Could be a surprise.

72

Clark

.....

Clark Savage Turner, Graduate Student Researcher  
Safety Critical Software Group home:  
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Irvine, CA. 92717 Irvine, CA. 92715  
(714) 856 4049 (714) 856 2131

WA3JPG, QRP #3526, active on HF, VHF and UHF.  
Admitted to practice law in California, Massachusetts, and New York.  
ARRL Volunteer Counsel

From qrp-request@Think.COM Wed Jun 16 15:26:46 1993  
Date: Wed, 16 Jun 93 15:26:12 EDT  
From: WILLIAMS@PACEVM.DAC.PACE.EDU  
Subject: World QRP Day

Happy World QRP Day! (the 17th, I believe)

Dave Williams, NN2D

From qrp-request@Think.COM Wed Jun 16 19:45:04 1993  
From: Kevin Purcell (Rho) <a-kevinp@microsoft.com>  
Date: Wed, 16 Jun 93 16:45:47 PDT  
Subject: RE: World QRP Day

Its also an Icelandic national holiday (suprisingly enough the two are related!).

Now's your chance to get the coveted Workdalleicelandur award (QRP, no less).



Kevin Purcell N7WIM / G8UDP

a-kevinp@microsoft.com

"We conjure the spirits of the computer with our spells"

From qrp-request@Think.COM Thu Jun 3 19:41:00 1993

Date: Thu, 3 Jun 93 13:40:54 HST

From: Jeff Herman <jherman@uhunix.uhcc.Hawaii.Edu>

Subject: [Mail Delivery Subsystem <MAILER-DAEMON>: Returned mail: Host

Date: Thu, 3 Jun 93 13:36:38 HST

From: Mail Delivery Subsystem <MAILER-DAEMON>

Subject: Returned mail: Host unknown

To: jherman

----- Transcript of session follows -----

550 qrp@think.comm... Host unknown: Address family not supported by protocol family

----- Unsent message follows -----

Received: by uhunix.uhcc.Hawaii.Edu (4.1/Sun690)

id AA09920; Thu, 3 Jun 93 13:36:38 HST

Date: Thu, 3 Jun 93 13:36:36 HST

From: Jeff Herman <jherman@uhunix.uhcc.Hawaii.Edu>

To: qrp@think.comm

Subject: a 'color-burst' 80M xmtr

Message-Id: <CMM.0.90.2.739150596.jherman@uhunix.uhcc.Hawaii.Edu>

I have sitting on my desk a circuit board from a junked color TV; staring back at me is an xtal marked with the frequency of 3579 kHz. My palms are sweating at the thought that, not 6 inches from my nose, I might have an almost ready-to-go 80 meter oscillator that just needs an amp stage to get me on 80.

I recall someone on the net some time ago mentioning their 'color burst special' xmtr, referring to this stage of a color tv. If that person, or anyone else can guide me on this little project, please contact me.

Thanks so much!!

Jeffrey Herman, NH6IL, University of Hawaii Mathematics

jherman@uhunix.uhcc.hawaii.edu